SAR TEST REPORT

Applicant	TCL Communication Ltd.
FCC ID	2ACCJH168
Product	GSM/UMTS/LTE /NR Mobile phone
Brand	TCL
Model	T609V
Report No.	R2301A0001-S1
Issue Date	February 7, 2023

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

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1 Test Laboratory

1.1 Notes of the Test Report

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

1.2 Test Facility

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

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

A2LA (Certificate Number: 3857.01)

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

1.3 Testing Location

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

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

2 Statement of Compliance

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

Table 1: Highest Reported SAR

Mode	Highest Reported SAR (W/kg)			
	1g SAR Head	1g SAR Body-worn	1g SAR Hotspot	Product Specific 10-g SAR
GSM 850	0.979	0.288	0.983	NA
GSM 1900	1.077	0.246	0.517	NA
WCDMA Band II	1.221	0.530	0.731	NA
WCDMA Band IV	1.117	0.288	0.574	NA
WCDMA Band V	1.142	0.122	0.657	NA
LTE FDD 2	1.192	0.426	0.388	1.184
LTE FDD 4	1.134	0.252	0.461	NA
LTE FDD 5	1.177	0.248	0.608	NA
LTE FDD 7	1.080	0.392	0.984	2.596
LTE FDD 12	0.792	0.196	0.430	NA
LTE FDD 13	1.011	0.279	0.488	NA
LTE FDD 25	1.319	0.318	0.506	NA
LTE FDD 26	1.110	0.271	0.568	NA
LTE TDD 41	1.028	0.403	**1.132**	1.102
LTE TDD 48	0.299	0.182	0.462	NA
LTE FDD 66	1.350	0.486	0.281	1.157
LTE FDD 71	0.705	0.337	0.383	NA
NR n2 (NSA)	0.722	0.521	0.445	NA
NR n5	0.863	0.285	0.626	NA
NR n25 (SA) (NR n2 (SA))	0.717	0.499	1.065	NA
NR n25 (NSA)	0.717	0.499	0.700	NA
NR n30	0.654	**0.749**	0.757	1.987
NR n41	0.776	0.555	0.783	**3.133**
NR n48	0.411	0.450	0.770	NA
NR n66	1.290	0.359	0.706	NA

NR n71	0.738	0.278	0.411	NA
NR n77	0.686	0.399	0.609	NA
Wi-Fi (2.4G)	**1.379**	0.168	0.492	NA
Wi-Fi (5G)	0.459	0.648	1.091	NA
Bluetooth	0.111	0.028	0.028	NA

Date of Testing: (Original) December 3, 2022 ~ December 22, 2022
(Variant) January 9, 2023 ~ January 11, 2023
Date of Sample Received: (Original) December 1, 2022
(Variant) January 3, 2023

Note:
1. The device is in compliance with SAR for Uncontrolled Environment /General Population exposure limits (1.6 W/kg and 4.0 W/kg) specified in ANSI C95.1: 1992/IEEE C95.1: 1991, and had been tested in accordance with the measurement methods and procedures specified in IEEE 1528-2013.
2. All indications of Pass/Fail in this report are opinions expressed by TA Technology (Shanghai) Co., Ltd. based on interpretations and/or observations of test results. Measurement Uncertainties were not taken into account and are published for informational purposes only.

Table 2: Highest Simultaneous Transmission SAR

Exposure Configuration	1g SAR Head	1g SAR Body-worn	1g SAR Hotspot	Product Specific 10-g SAR
Highest Simultaneous Transmission SAR (W/kg)	1.565	1.536	1.548	3.212

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

1) According to TCB workshop October, 2014 RF Exposure Procedures Update (Overlapping LTE Bands):
   a) SAR for NR Band n2 SA mode (Frequency range: 1850-1910 MHz) is covered by NR Band n25 SA mode (Frequency range 1850-1915 MHz) due to similar frequency range, same maximum tune up limit and same channel bandwidth.

T609V (Report No.: R2301A0001-S1) is a variant model of T609DL (Report No.: R2211A1120-S1).

Tested band refer to the following table.

Band	Original	Variant
GSM 850	Pass	/
GSM 1900	Pass	/
WCDMA Band II	Pass	/
WCDMA Band IV	Pass	/
WCDMA Band V	Pass	/
LTE FDD 2	Pass	/
LTE FDD 4	Pass	/
LTE FDD 5	Pass	/
LTE FDD 7	Pass	/
LTE FDD 12	Pass	/
LTE FDD 13	Pass	/
LTE FDD 25	Pass	/
LTE FDD 26	Pass	/
LTE TDD 41	Pass	Only tested with worst case of original for body (Battery 2 & SIM 2)
LTE TDD 48	/	Pass
LTE FDD 66	Pass	Only tested with worst case of original for head (SIM 2)
LTE FDD 71	Pass	/
NR n2	Pass	Add SA mode
NR n5	Pass	Add SA mode
NR n25	Pass	/
NR n30	Pass	/
NR n41	Pass	/
NR n48	Pass	Pass
NR n66	Pass	/
NR n71	Pass	/
NR n77	Pass	Remove SA mode
Wi-Fi (2.4G)	Pass	Only tested with worst case of original for head (Battery 2)
Wi-Fi (5G)	Pass	/
Bluetooth	Pass	/

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

3 Description of Equipment Under Test

Client Information

Applicant	TCL Communication Ltd.
Applicant address	5/F, Building 22E, 22 Science Park East Avenue, Hong Kong Science Park, Shatin, NT, Hong Kong
Manufacturer	TCL Communication Ltd.
Manufacturer address	5/F, Building 22E, 22 Science Park East Avenue, Hong Kong Science Park, Shatin, NT, Hong Kong

General Technologies

Application Purpose	Class II Permissive Change	
EUT Stage	Identical Prototype	
Model	T609V	
SN	Original	HUWCVGMRUSOFPFMR
	Variant	7LMNFMHMJFA6Q89L
Hardware Version	04	
Software Version	QYS1	
Antenna Type	Internal Antenna	
Device Class	B	
Wi-Fi Hotspot	Wi-Fi 2.4G Wi-Fi 5G	
Power Class	GSM 850: 4 GSM 1900: 1 WCDMA Band II/IV/V: 3 LTE FDD 2/4/5/7/12/13/25/26/66/71: 3 LTE TDD 41: 2&3 LTE TDD 48: 3 NR n2/n5/n25/n30/n66/n48/n71: 3 NR n41/ n77: 2	
Power Level	GSM 850: level 5 GSM 1900: level 0 WCDMA Band II/IV/V: all up bits LTE FDD 2/4/5/7/12/13/25/26 /66/71: max power LTE TDD 41/48: max power NR n2/n5/n25/n30/n41/n48/n66/n71/n77: max power	
EUT Accessory		
Battery 1	Manufacturer: BYD Model: TLp048D7 (PN: CAC4850007C7)	
Battery 2	Manufacturer: TIANMAO Model: TLp048AA (PN: CAC4850009CA)	
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			
WCDMA	Band II	QPSK, 16QAM	HSDPA UE Category: 24 HSUPA UE Category: 7	1850 ~ 1910
	Band IV			1710 ~ 1755
	Band V			824 ~ 849
LTE	FDD 2	QPSK, 16QAM, 64QAM	Rel.15 /Category 6	1850 ~ 1910
	FDD 4			1710 ~ 1755
	FDD 5			824 ~ 849
	FDD 7			2500 ~ 2570
	FDD 12			699 ~ 716
	FDD 13			777 ~ 787
	FDD 25			1850 ~ 1915
	FDD 26			814 ~ 849
	TDD 41			2496 ~ 2690
	TDD 48			3650 ~ 3700
	FDD 66			1710 ~ 1780
	FDD 71			663 ~ 698
	Does this device support Carrier Aggregation (CA) ☒Yes downlink only ☐No			
	Does this device support SV-LTE (1xRTT-LTE)? ☐Yes ☒No			
NR	n2	CP-OFDM: QPSK, 16QAM, 64QAM, 256QAM; DFT-s OFDM: PI/2 BPSK, QPSK, 16QAM, 64QAM, 256QAM	/	1850 ~ 1910
	n5			824 ~ 849
	n25			1850 ~ 1915
	n30			2305 ~ 2315
	n41			2496 ~ 2690
	n48			3650 ~ 3700
	n66			1710 ~ 1780
	n71			663 ~ 698
	n77			3300 ~ 4200
Bluetooth	2.4G	Version 5.1 BR/EDR + LE		2402 ~2480

Wi-Fi	2.4G	DSSS, OFDM	802.11b/g/n HT20	2412 ~ 2462
		OFDM	802.11n HT40	2422 ~ 2452
	5G	OFDM	802.11a/n HT20/ HT40/ ac VHT20/ VHT40/ VHT80	5150 ~ 5350 5470 ~ 5850
	Does this device support MIMO ☐Yes ☒No			

Note:
Radio equipment in LTE band 28 is only allowed to operate from 703 MHz to 716 MHz for Subset 1; 728 MHz to 746 MHz for Subset 2 for the transmitter. 758 MHz to 771 MHz for Subset 1; 783 MHz to 801 MHz for Subset 2 for the receiver.
Radio equipment in band n77 is only allowed to operate from 3450 MHz to 3550 MHz for Subset 1; 3700 MHz to 3980 MHz for Subset 2 for the transmitter and receiver.

4 Test Specification, Methods and Procedures

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

Reference Standards

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

5 Operational Conditions during Test

5.1 Test Positions

5.1.1 Against Phantom Head

Measurements were made in “cheek” and “tilt” positions on both the left hand and right hand sides of the phantom.
The positions used in the measurements were according to IEEE 1528 - 2013 "IEEE Recommended Practice for Determining the Peak Spatial-Average Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques".

5.1.2 Body Worn Configuration

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

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

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

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

5.1.3 Phablet SAR Test Considerations

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

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

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

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

5.2 Measurement Variability

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

SAR Measurement Variability was assessed using the following procedures for each frequency band:
1) When the original highest measured SAR is ≥ 0.80 W/kg, the measurement was repeated once.
2) A second repeated measurement was 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 WCDMA 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 WCDMA 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$\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.

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, HSPA+ and DC-HSDPA Test Configuration

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

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

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

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

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

4) Regardless of whether a PBA is required, the following information must be verified and included in the SAR report for devices supporting HSPA, HSPA+ or DC-HSDPA:

a) The output power measurement results and applicable release version(s) of 3GPP TS 34.121. Power measurement difficulties due to test equipment setup or availability must be resolved between the grantee and its test lab.

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

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

5) When SAR measurement is required, the test configurations, procedures and power measurement

results must be clearly described to confirm that the required test parameters are used, including E-TFCI and AG index stability and output power conditions.

Table 7: HS-DSCH UE Category

HS-DSCH category	Maximum number of HS-DSCH codes received	Minimum inter-TTI interval	Maximum number of bits of an HS-DSCH transport block received within an HS-DSCH TTI NOTE 1	Total number of soft channel bits	Supported modulations without MIMO operation or dual cell operation	Supported modulations with MIMO operation and without dual cell operation	Supported modulations with dual cell operation
Category 1	5	3	7298	19200	QPSK, 16QAM	Not applicable (MIMO not supported)	Not applicable (dual cell operation not supported)
Category 2	5	3	7298	28800			
Category 3	5	2	7298	28800			
Category 4	5	2	7298	38400			
Category 5	5	1	7298	57600			
Category 6	5	1	7298	67200			
Category 7	10	1	14411	115200			
Category 8	10	1	14411	134400			
Category 9	15	1	20251	172800			
Category 10	15	1	27952	172800			
Category 11	5	2	3630	14400	QPSK		
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.

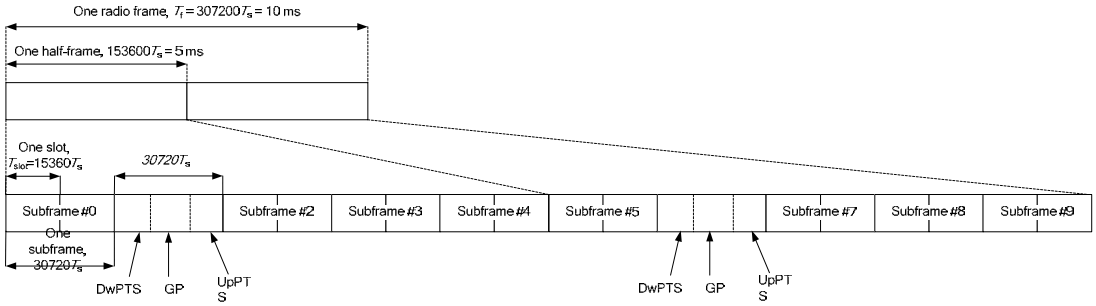


Figure 1: Frame structure type 2

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

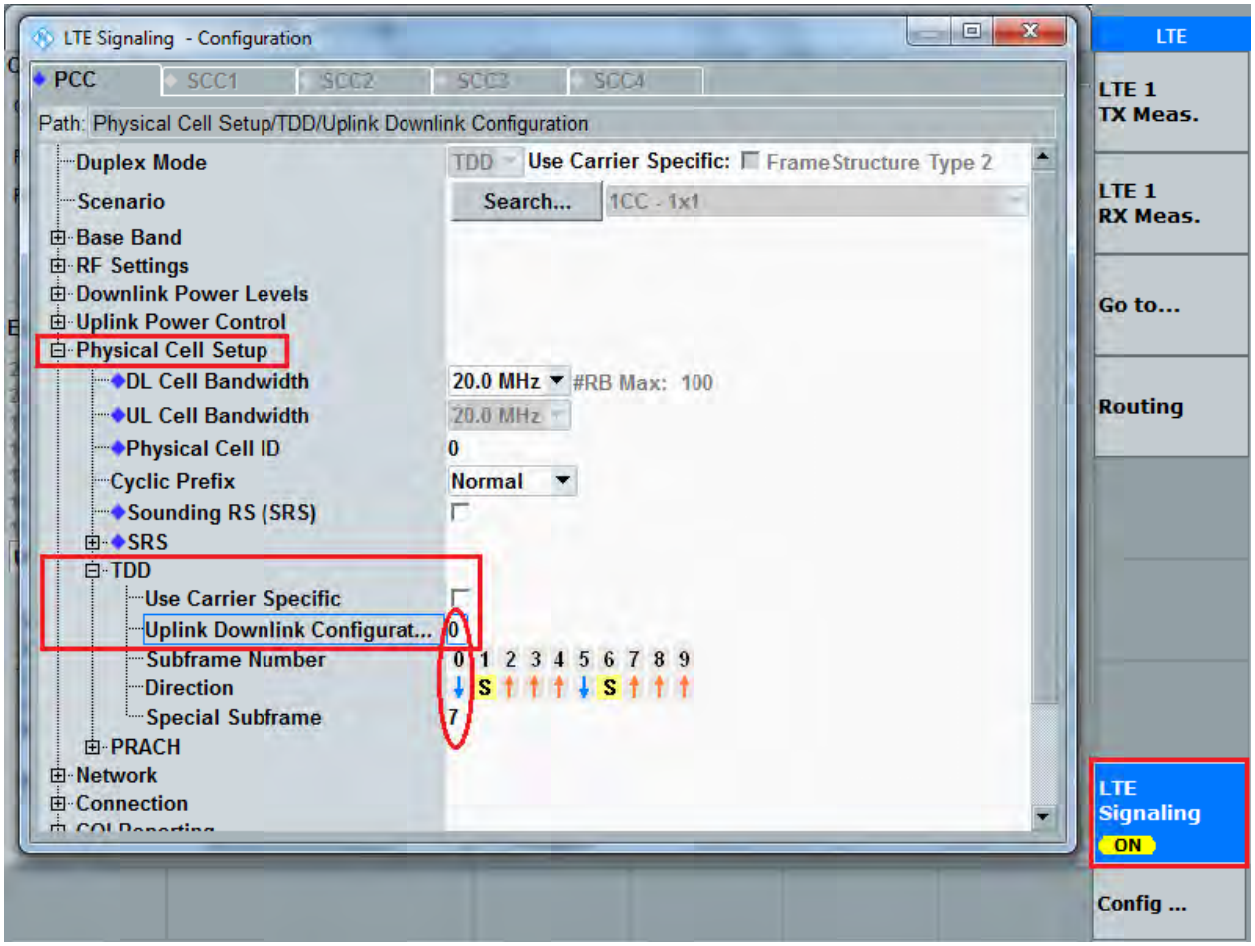
In conclusion, for the TDD LTE Band, Duty Cycle can be calculated with formula as below. All these sets are ok when we test, or we can set as below.

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 5G NR Test Configuration

Due to test setup limitations, SAR testing for NR was performed using factory test mode software to establish the connection and perform SAR with 100% transmission. NR Band n41/ n77 supports HPUE, HPUE power and SAR testing performed separately, NR Band n41/ n77 HUPE with higher power.

The DFT-s-OFDM and CP-OFDM waveforms were investigated, and DFT-s-OFDM was found to be the worst case.
The worst-case scenario for all measurements is based on an engineering evaluation and QPSK was observed as the worst one and set for all conducted and radiated. Output power measurements were measured on QPSK, 16QAM, 64QAM, 256QAM, and BPSK, modulations.

For EN-DC SAR, as the existing SAR test system can not test the multiple different frequency bands simultaneous Transmission SAR at the same time , we suggest that the conservative "max tune-up + max tune-up" for hotspot multi-Tx and SAR scaling method can be used to evaluate the inter-band Uplink EN-DC SAR from standalone SAR test results of each LTE and NR EN-DC component band and the conservative "max tune-up + max tune-up" for hotspot multi-Tx method to combine the scaled SAR value from each EN-DC component band as the inter-band Uplink EN-DC SAR. All Simultaneous Transmission Scenarios will be evaluated independently in the final SAR report.

5.3.6 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.

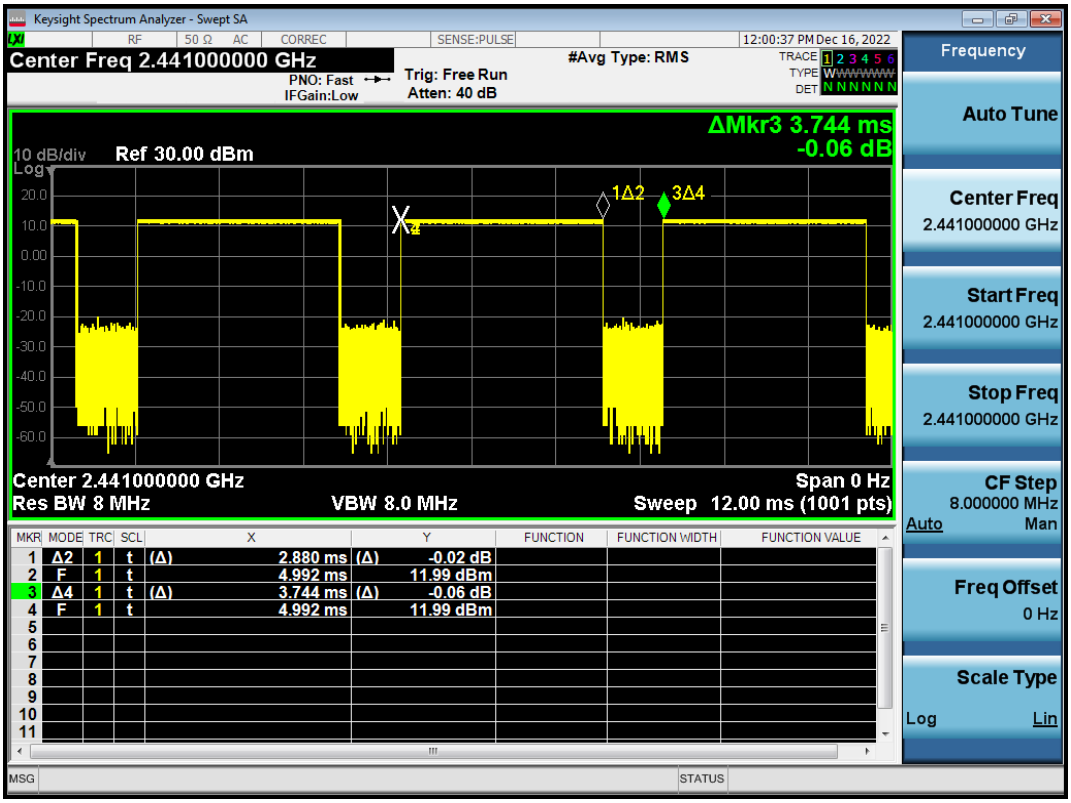
- ✧ For subsequent test positions with equivalent test separation distance or when exposure is dominated by coupling conditions, the position for maximum coupling condition should be tested.
- ✧ When it is unclear, all equivalent conditions must be tested.

- 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.

5.3.7 Bluetooth Test Configuration

For Bluetooth SAR testing, Bluetooth 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 Bluetooth duty cycle and is reflected in the report, and the duty factor of the device is as follow:



Note: Duty factor= Ton (ms)/ T(on+off) (ms)=2.880/3.744*100%=76.9%

5.3.8 Downlink LTE CA specification

The device supports LTE advanced Rel. 15, Carrier Aggregation (CA) is supported for Intra band / Intra band non-contiguous / Inter-band, more details information is provided in tables below:

1) DL CA Intra band contiguous

E-UTRA CA configuration / Bandwidth combination set							
E-UTRA CA configuration	Component carriers in order of increasing carrier frequency					Maximum aggregated bandwidth [MHz]	Bandwidth combination set
	Channel bandwidths for carrier [MHz]	Channel bandwidths for carrier [MHz]	Channel bandwidths for carrier [MHz]	Channel bandwidths for carrier [MHz]	Channel bandwidths for carrier [MHz]		
CA_2C	5	20				40	0
	10	15, 20					
	15	10, 15, 20					
	20	5, 10, 15, 20					
CA_5B	5, 10	10				20	0
	10	5					
	3	5				8	1
	5	3					
CA_41C	10	20				40	0
	15	15, 20					
	20	10, 15, 20					

	5, 10	20				40	1
	15	15, 20					
	20	5, 10, 15, 20					
	10	15, 20				40	2
	15	10, 15, 20					
	20	10, 15, 20					
	10	20				40	3
	20	20					
CA_66B	5	5, 10, 15				20	0
	10	5, 10					
	15	5					
CA_66C	5	20				40	0
	10	15, 20					
	15	10, 15, 20					
	20	5, 10, 15, 20					

2) DL CA Intra band non-contiguous

E-UTRA CA configuration / Bandwidth combination set							
E-UTRACA configuration	Component carriers in order of increasing carrier frequency					Maximum aggregated bandwidth [MHz]	Bandwidth combination set
	Channel bandwidths for carrier [MHz]	Channel bandwidths for carrier [MHz]	Channel bandwidths for carrier [MHz]	Channel bandwidths for carrier [MHz]	Channel bandwidths for carrier [MHz]		
CA_2A-2A	5, 10, 15, 20	5, 10, 15, 20				40	0
CA_4A-4A	5, 10, 15, 20	5, 10, 15, 20				40	0
	5, 10	5, 10				20	1
CA_5A-5A	5,10	5,10				20	0
	3	5				8	1
CA_25A-25A	5, 10	5, 10				20	0
	5, 10, 15, 20	5, 10, 15, 20				40	1
CA_41A-41A	10, 15, 20	10, 15, 20				40	0
	5, 10, 15, 20	5, 10, 15, 20				40	1
CA_66A-66A	5, 10, 15, 20	5, 10, 15, 20				40	0

3) DL CA Inter-band

E-UTRA CA configuration / Bandwidth combination set									
E-UTRA CA Configuration	E-UTRA Bands	1.4 MHz	3 MHz	5 MHz	10 MHz	15 MHz	20 MHz	Maximum aggregated bandwidth [MHz]	Bandwidth combination set
CA_2A-4A	2	Yes	Yes	Yes	Yes	Yes	Yes	40	0
	4			Yes	Yes	Yes	Yes		
	2			Yes	Yes			20	1
	4			Yes	Yes				
	2			Yes	Yes	Yes	Yes	40	2
	4			Yes	Yes	Yes	Yes		
CA_2A-5A	2			Yes	Yes	Yes	Yes	30	0
	5			Yes	Yes				
	2			Yes	Yes			20	1
	5			Yes	Yes				
CA_2A-12A	2			Yes	Yes	Yes	Yes	30	0
	12			Yes	Yes				
	2			Yes	Yes	Yes	Yes	30	1
	12		Yes	Yes	Yes				

	2			Yes	Yes			20	2
	12			Yes	Yes				
CA_2A-13A	2			Yes	Yes	Yes	Yes	30	0
	13				Yes				
	2			Yes	Yes			20	1
	13				Yes				
CA_2A-66A	2	Yes	Yes	Yes	Yes	Yes	Yes	40	0
	66			Yes	Yes	Yes	Yes		
	2			Yes	Yes			20	1
	66			Yes	Yes				
	2			Yes	Yes	Yes	Yes	40	2
	66			Yes	Yes	Yes	Yes		
CA_2A-71A	2			Yes	Yes	Yes	Yes	40	0
	71			Yes	Yes	Yes	Yes		
	2			Yes	Yes			20	1
	71			Yes	Yes				
CA_4A-5A	4			Yes	Yes			20	0
	5			Yes	Yes				
	4			Yes	Yes	Yes	Yes	30	1
	5			Yes	Yes				
CA_4A-12A	4	Yes	Yes	Yes	Yes			20	0
	12			Yes	Yes				
	4	Yes	Yes	Yes	Yes	Yes	Yes	30	1
	12			Yes	Yes				
	4			Yes	Yes	Yes	Yes	30	2
	12		Yes	Yes	Yes				
	4			Yes	Yes			20	3
	12			Yes	Yes				
	4			Yes	Yes	Yes	Yes	30	4
	12			Yes	Yes				
	4			Yes	Yes	Yes		20	5
	12			Yes					
CA_4A-13A	4			Yes	Yes	Yes	Yes	30	0
	13				Yes				
	4			Yes	Yes			20	1
	13				Yes				
CA_4A-71A	4			Yes	Yes	Yes	Yes	40	0
	71			Yes	Yes	Yes	Yes		
CA_5A-41A	5			Yes	Yes			30	0
	41						Yes		
CA_5A-66A	5			Yes	Yes			30	0
	66			Yes	Yes	Yes	Yes		
CA_12A-66A	12			Yes	Yes			20	0

	66	Yes	Yes	Yes	Yes				
	12			Yes	Yes			30	1
	66	Yes	Yes	Yes	Yes	Yes	Yes		
	12		Yes	Yes	Yes			30	2
	66			Yes	Yes	Yes	Yes		
	12			Yes	Yes			20	3
	66			Yes	Yes				
	12			Yes	Yes			30	4
	66			Yes	Yes	Yes	Yes		
	12			Yes				20	5
	66			Yes	Yes	Yes			
CA_13A-66A	13			Yes	Yes			30	0
	66			Yes	Yes	Yes	Yes		
CA_25A-41A	25			Yes	Yes	Yes	Yes	40	0
	41			Yes	Yes	Yes	Yes		
CA_25A-66A	25	Yes	Yes	Yes	Yes	Yes	Yes	40	0
	66	Yes	Yes	Yes	Yes	Yes	Yes		
CA_41A-48A	41				Yes	Yes	Yes	40	0
	48			Yes	Yes	Yes	Yes		
CA_66A-71A	66			Yes	Yes	Yes	Yes	40	0
	71			Yes	Yes	Yes	Yes		

For downlink carrier aggregation, SAR is not required for downlink carrier aggregation in active uplink maximum output power not more than 1/4dB higher than the maximum output power measured when downlink carrier aggregation inactive.

5.3.9 Power Reduction Configuration

Overview of power reduction scenarios

The mobile phone device meets SAR requirements by accurately reducing the power of various scenes. Mainly the following scenarios:

1) Head SAR is mainly determined by whether the Receiver on.

2) Body SAR is mainly determined by whether the Receiver off or Receiver off + Hotspot on.

Description of power reduction scenarios

The mobile phone device supports the receiver detection mechanism. This device uses the receiver to indicate whether the user is making a call in head or body.

When there is a voice call (including VOIP) and the audio is actively routed through the earpiece receiver, which indicating the head exposure condition it will trigger the head exposure reduced the power.

When there is a voice call (including VOIP), and the audio is actively routed through the headset or speaker, which indicating the body exposure conditions will trigger the body exposure reduced the power.

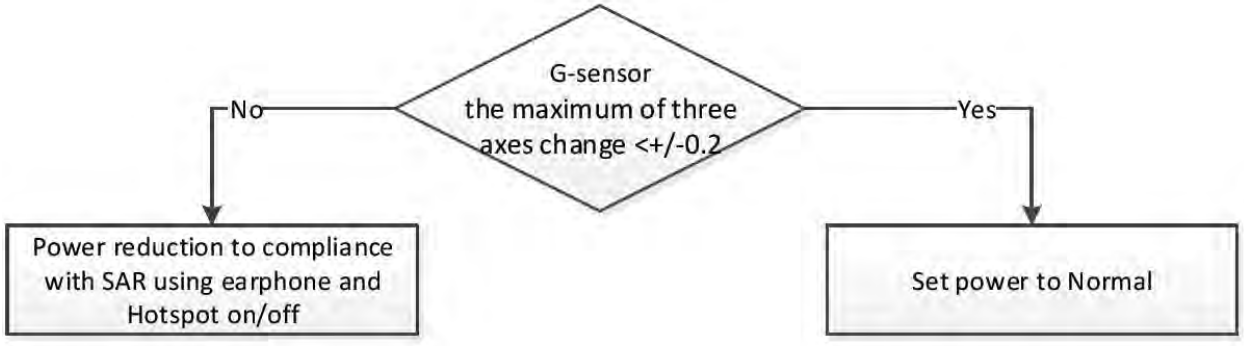
When this device used data mode only, and the receiver will not work too, the reduced the power are same as body exposure.

In order to judge whether the mobile phone is on the person's body, the method of using G-sensor is proposed as follows.

First, G-sensor can judge if the phone is “moving” or not by axes x, y, z variation. If we set the judgment conditions to be sensitive enough, then all of user cases which phone proximity to human body are in “moving”.
Main user cases of Mobile phone and the maximum of three axes(x, y, z) change from G-sensor is as below table:

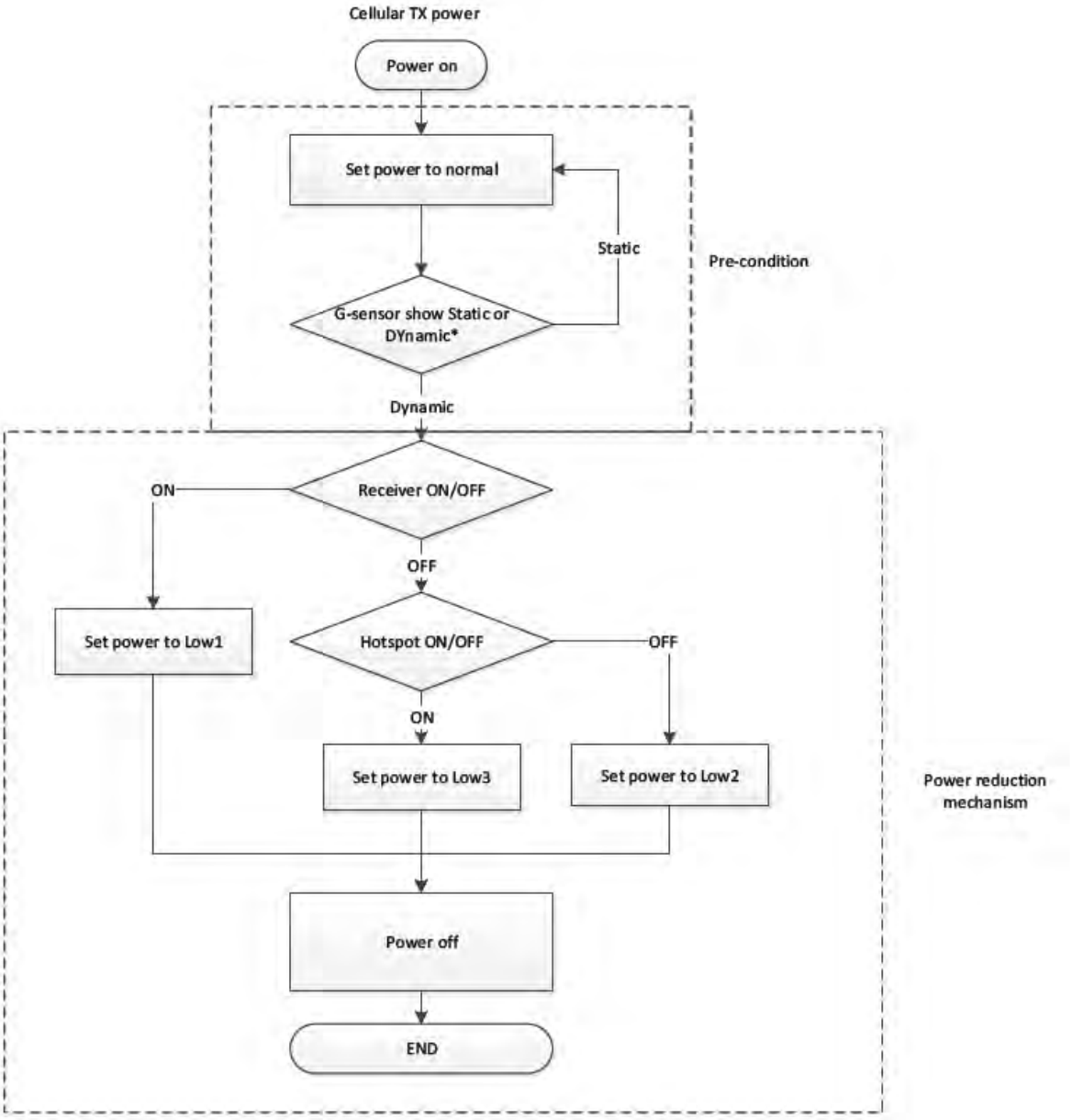
User Case	Making call and beside head and hand	Browsing	In people's pockets(Sit still)	Leaving the body and putting on a stationary table	Leaving the body and putting in a moving place
The maximum of three axes change from G-sensor	>+/-0.5	>+/-0.5	>+/-0.5	+/-0.05~0.1	>+/-0.5
Power reduction is on or off	On	On	On	Off	On

We choose the maximum of three axes change <+/-0.2 as judgment conditions. Detect interval is 200ms.



When the maximum of three axes change <+/-0.2, the user case MUST be mobile phone stay away from the body, but if it is>+/-0.2, it MAY be on the person’s body, power reduction is on.

Detail Power reduction mechanism



*When it is in “static” state, the detection frequency is 200ms. When it is In “Dynamic” state, the detection frequency is 30s.

WWAN Reduced power level table

Antenna	Position	Receiver State	Hotspot State	Transmitting conditions
ANT0	Head	On	N/A	WWAN Only
		On	N/A	WWAN+WLAN2.4G/5G
	Body worn /Product-specific 10g SAR	Off	N/A	WWAN Only
		Off	N/A	WWAN+WLAN2.4G/5G
	Hotspot	Off	On	WWAN Only
		Off	On	WWAN+WLAN2.4G/5G
ANT1	Head	On	N/A	WWAN Only
		On	N/A	WWAN+WLAN2.4G/5G
	Body worn /Product-specific 10g SAR	Off	N/A	WWAN Only
		Off	N/A	WWAN+WLAN2.4G/5G
	Hotspot	Off	On	WWAN Only
		Off	On	WWAN+WLAN2.4G/5G
ANT2	Head	On	N/A	WWAN Only
		On	N/A	WWAN+WLAN2.4G/5G
	Body worn /Product-specific 10g SAR	Off	N/A	WWAN Only
		Off	N/A	WWAN+WLAN2.4G/5G
	Hotspot	Off	On	WWAN Only
		Off	On	WWAN+WLAN2.4G/5G
ANT4	Head	On	N/A	WWAN Only
		On	N/A	WWAN+WLAN2.4G/5G
	Body worn /Product-specific 10g SAR	Off	N/A	WWAN Only
		Off	N/A	WWAN+WLAN2.4G/5G
	Hotspot	Off	On	WWAN Only
		Off	On	WWAN+WLAN2.4G/5G

WWAN Reduced power level table												
Mode	Band	Normal Power (Tune up)	Antenna	Head (Receiver on)			Body worn & Product-specific 10g SAR (Receiver off)			Hotspot (Receiver off + Hotspot on)		
				Stand alone	Simultaneous transmission		Stand alone	Simultaneous transmission		Stand alone	Simultaneous transmission	
					WWAN+ 2.4G WLAN	WWAN+ 5G WLAN		WWAN+ 2.4G WLAN	WWAN+ 5G WLAN		WWAN+ 2.4G WLAN	WWAN+ 5G WLAN
GSM (CS)	GSM 850	32.0	Ant.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GSM (CS)	GSM 1900	30.0	Ant.2	1.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0
12.2kbps RMC	WCDMA B2	24.0	Ant.2	4.0	4.0	4.0	0.5	0.5	0.5	0.5	0.5	0.5
12.2kbps RMC	WCDMA B4	24.0	Ant.2	2.7	2.7	2.7	0.7	0.7	0.7	0.7	0.7	0.7
12.2kbps RMC	WCDMA B5	24.0	Ant.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LTE Bands	LTE B2	24.5	Ant.2	5.0	5.0	5.0	1.0	1.0	1.0	2.0	2.0	2.0
		23.3	Ant.1	0.0	0.0	0.0	3.8	3.8	3.8	7.8	7.8	7.8

	LTE B4	24.5	Ant.2	3.0	3.0	3.0	1.0	1.0	1.0	2.3	2.3	2.3
	LTE B5	24.5	Ant.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	LTE B7	23.5	Ant.4	1.0	1.0	1.0	4.2	4.2	4.2	5.0	5.0	5.0
	LTE B12	24.5	Ant.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	LTE B13	24.0	Ant.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	LTE B25	24.5	Ant.0	2.5	2.5	2.5	1.0	1.0	1.0	2.0	2.0	2.0
	LTE B26	24.5	Ant.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	LTE B41 Power Class 3	24.0	Ant.4	1.0	1.0	1.0	3.5	3.5	3.5	2.0	2.0	2.0
	LTE B41 Power Class 2	26.5	Ant.4	1.0	1.0	1.0	3.0	3.0	3.0	2.0	2.0	2.0
	LTE B48	23.0	Ant.2	2.5	2.5	2.5	3.5	3.5	3.5	3.0	3.0	3.0
	LTE B66	24.5	Ant.2	3.0	3.0	3.0	1.0	1.0	1.0	2.3	2.3	2.3
		23.3	Ant.1	0.0	0.0	0.0	5.3	5.3	5.3	9.3	9.3	9.3
	LTE B71	24.5	Ant.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SA Bands	n 2	24.8	Ant.2	5.8	5.8	5.8	0.0	0.0	0.0	0.0	0.0	0.0
	n 5	24.5	Ant.0	2.0	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0
	n 25	24.8	Ant.2	5.8	5.8	5.8	0.0	0.0	0.0	0.0	0.0	0.0
	n 41 Power Class 2	26.5	Ant.4	5.5	5.5	5.5	6.0	6.0	6.0	7.5	7.5	7.5
	n 48	23.0	Ant.2	5.0	5.0	5.0	4.0	4.0	4.0	4.5	4.5	4.5
	n 66	24.0	Ant.2	3.0	3.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0
	n 71	24.5	Ant.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EN-DC	LTE B2	23.3	Ant.1	0.0	0.0	0.0	3.8	3.8	3.8	7.8	7.8	7.8
(B2+N2)	n 2	24.8	Ant.2	5.8	5.8	5.8	0.0	0.0	0.0	0.0	3.8	3.8
EN-DC	LTE B5	24.5	Ant.0	3.0	3.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0
(B5+N2)	n 2	24.8	Ant.2	5.8	5.8	5.8	0.0	0.0	0.0	0.0	3.8	3.8
EN-DC	LTE B12	24.5	Ant.0	2.5	2.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0
(B12+N2)	n 2	24.8	Ant.2	5.8	5.8	5.8	0.0	0.0	0.0	0.0	3.8	3.8
EN-DC	LTE B13	24.5	Ant.0	2.0	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0
(B13+N2)	n 2	24.8	Ant.2	5.8	5.8	5.8	0.0	0.0	0.0	0.0	3.8	3.8
EN-DC	LTE B66	23.3	Ant.1	0.0	0.0	0.0	5.3	5.3	5.3	9.3	9.3	9.3
(B66+N2)	n 2	24.8	Ant.2	5.8	5.8	5.8	0.0	0.0	0.0	0.0	3.8	3.8
EN-DC	LTE B2	23.3	Ant.1	0.0	0.0	0.0	3.8	3.8	3.8	7.8	7.8	7.8
(B2+N5)	n 5	24.5	Ant.0	3.5	3.5	3.5	0.0	0.0	0.0	0.0	0.0	0.0
EN-DC	LTE B66	23.3	Ant.1	0.0	0.0	0.0	5.3	5.3	5.3	9.3	9.3	9.3
(B66+N5)	n 5	24.5	Ant.0	3.5	3.5	3.5	0.0	0.0	0.0	0.0	0.0	0.0
EN-DC	LTE B2	23.3	Ant.1	0.0	0.0	0.0	3.8	3.8	3.8	7.8	7.8	7.8
(B2+N25)	n 25	24.8	Ant.2	5.8	5.8	5.8	0.0	0.0	0.0	3.8	3.8	3.8
EN-DC	LTE B12	24.5	Ant.0	2.5	2.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0
(B12+N25)	n 25	24.8	Ant.2	5.8	5.8	5.8	0.0	0.0	0.0	3.8	3.8	3.8
EN-DC	LTE B66	23.3	Ant.1	0.0	0.0	0.0	5.3	5.3	5.3	9.3	9.3	9.3
(B66+N25)	n 25	24.8	Ant.2	5.8	5.8	5.8	0.0	0.0	0.0	3.8	3.8	3.8

EN-DC	LTE B2	23.3	Ant.1	0.0	0.0	0.0	3.8	3.8	3.8	7.8	7.8	7.8
(B2+N30)	n 30	24.5	Ant.4	3.5	3.5	3.5	2.5	2.5	2.5	4.5	4.5	4.5
EN-DC	LTE B5	24.5	Ant.0	3.0	3.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0
(B5+N30)	n 30	24.5	Ant.4	3.5	3.5	3.5	2.5	2.5	2.5	4.5	4.5	4.5
EN-DC	LTE B12	24.5	Ant.0	2.5	2.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0
(B12+N30)	n 30	24.5	Ant.4	3.5	3.5	3.5	2.5	2.5	2.5	4.5	4.5	4.5
EN-DC	LTE B66	23.3	Ant.1	0.0	0.0	0.0	5.3	5.3	5.3	9.3	9.3	9.3
(B66+N30)	n 30	24.5	Ant.4	3.5	3.5	3.5	2.5	2.5	2.5	4.5	4.5	4.5
EN-DC	LTE B2	23.3	Ant.1	0.0	0.0	0.0	3.8	3.8	3.8	7.8	7.8	7.8
(B2+N41)	n 41	26.5	Ant.4	5.5	5.5	5.5	6.0	6.0	6.0	7.5	7.5	7.5
EN-DC	LTE B66	23.3	Ant.1	0.0	0.0	0.0	5.3	5.3	5.3	9.3	9.3	9.3
(B66+N41)	n 41	26.5	Ant.4	5.5	5.5	5.5	6.0	6.0	6.0	7.5	7.5	7.5
EN-DC	LTE B2	23.3	Ant.1	0.0	0.0	0.0	3.8	3.8	3.8	7.8	7.8	7.8
(B2+N66)	n 66	24.5	Ant.2	5.5	5.5	5.5	0.0	0.0	0.0	0.0	0.0	0.0
EN-DC	LTE B5	24.5	Ant.0	3.0	3.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0
(B5+N66)	n 66	24.5	Ant.2	5.5	5.5	5.5	0.0	0.0	0.0	0.0	0.0	0.0
EN-DC	LTE B12	24.5	Ant.0	2.5	2.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0
(B12+N66)	n 66	24.5	Ant.2	5.5	5.5	5.5	0.0	0.0	0.0	0.0	0.0	0.0
EN-DC	LTE B13	24.5	Ant.0	2.0	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0
(B13+N66)	n 66	24.5	Ant.2	5.5	5.5	5.5	0.0	0.0	0.0	0.0	0.0	0.0
EN-DC	LTE B66	23.3	Ant.1	0.0	0.0	0.0	5.3	5.3	5.3	9.3	9.3	9.3
(B66+N66)	n 66	24.5	Ant.2	5.5	5.5	5.5	0.0	0.0	0.0	0.0	0.0	0.0
EN-DC	LTE B2	23.3	Ant.1	0.0	0.0	0.0	3.8	3.8	3.8	7.8	7.8	7.8
(B2+N71)	n 71	24.5	Ant.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EN-DC	LTE B66	23.3	Ant.1	0.0	0.0	0.0	5.3	5.3	5.3	9.3	9.3	9.3
(B66+N71)	n 71	24.5	Ant.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EN-DC	LTE B2	23.3	Ant.1	0.0	0.0	0.0	3.8	3.8	3.8	7.8	7.8	7.8
(B2+N77)	n 77	27.2	Ant.2	9.2	9.2	9.2	8.2	8.2	8.2	8.7	8.7	8.7
EN-DC	LTE B5	24.5	Ant.0	3.0	3.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0
(B5+N77)	n 77	27.2	Ant.2	9.2	9.2	9.2	8.2	8.2	8.2	8.7	8.7	8.7
EN-DC	LTE B12	24.5	Ant.0	2.5	2.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0
(B12+N77)	n 77	27.2	Ant.2	9.2	9.2	9.2	8.2	8.2	8.2	8.7	8.7	8.7
EN-DC	LTE B13	24.5	Ant.0	2.0	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0
(B13+N77)	n 77	27.2	Ant.2	9.2	9.2	9.2	8.2	8.2	8.2	8.7	8.7	8.7
EN-DC	LTE B66	23.3	Ant.1	0.0	0.0	0.0	5.3	5.3	5.3	9.3	9.3	9.3
(B66+N77)	n 77	27.2	Ant.2	9.2	9.2	9.2	8.2	8.2	8.2	8.7	8.7	8.7

WLAN Reduced power level table

Antenna	Position	Receiver State	Hotspot State	Transmitting conditions
ANT7	Head	On	N/A	WLAN Only
		On	N/A	WWAN+WLAN2.4G/5G
	Body worn /Product-specific 10g SAR	Off	N/A	WLAN Only
		Off	N/A	WWAN+WLAN2.4G/5G
	Hotspot	Off	On	WLAN Only
		Off	On	WWAN+WLAN2.4G/5G

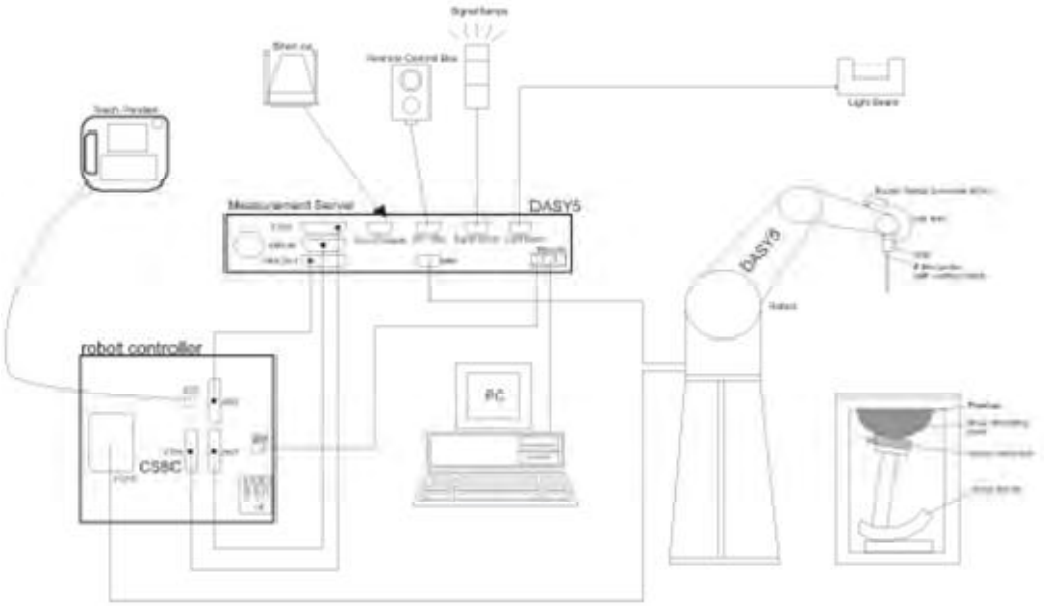
WLAN Reduced power level table									
Mode	Band	Normal Power (Tune up)	Antenna	Head (Receiver on)		Body worn & Product-specific 10g SAR (Receiver off)		Hotspot (Receiver off)	
				Stand alone	Simultaneous transmission WWAN+2.4/5G WLAN	Stand alone	Simultaneous transmission WWAN+2.4/5G WLAN	Stand alone	Simultaneous transmission WWAN+2.4/5G WLAN
2.4G	802.11b CH1-11	20.5	Ant.7	2.5	10.5	0.0	9.5	0.0	5.5
	802.11g CH1-11	20.0		3.0	11.0	0.0	11.0	0.0	6.0
	802.11nHT20 CH1-11	20.0		3.0	11.0	0.0	11.0	0.0	6.0
	802.11nHT40 CH3-9	18.0		1.0	9.0	0.0	9.0	0.0	4.0
5G U-NII-1	802.11a CH36-48	19.5	Ant.7	5.0	10.5	0.0	9.3	0.0	6.5
	802.11nHT20 CH36-48	19.0		5.8	11.0	0.0	10.0	0.0	7.0
	802.11nHT40 CH38-46	15.0		2.9	8.0	0.0	7.0	0.0	4.0
	802.11acVHT20 CH36-48	19.0		5.5	11.0	0.0	10.0	0.0	7.0
	802.11acVHT40 CH38-46	14.0		2.0	7.0	0.0	6.0	0.0	3.0
	802.11acVHT80 CH42	14.0		0.5	6.0	0.0	5.5	0.0	2.5
5G U-NII-2A	802.11a CH52-64	19.5	Ant.7	5.0	10.5	0.0	9.3	0.0	6.5
	802.11nHT20 CH52-64	19.0		5.8	11.0	0.0	10.0	0.0	7.0
	802.11nHT40 CH54-62	15.0		2.9	8.0	0.0	7.0	0.0	4.0
	802.11acVHT20 CH52-64	19.0		5.5	11.0	0.0	10.0	0.0	7.0
	802.11acVHT40 CH54-62	14.0		2.0	7.0	0.0	6.0	0.0	3.0
	802.11acVHT80 CH58	14.0		1.5	6.0	0.0	5.5	0.0	2.5
5G U-NII-2C	802.11a CH100-144	19.5	Ant.7	5.0	10.5	0.0	9.3	0.0	6.5
	802.11nHT20 CH100-144	19.0		5.8	11.0	0.0	10.0	0.0	7.6
	802.11nHT40 CH102-142	15.0		2.9	8.0	0.0	7.0	0.0	4.0
	802.11acVHT20 CH100-144	19.0		5.5	11.0	0.0	10.0	0.0	7.0
	802.11acVHT40 CH102-142	14.0		2.0	7.0	0.0	6.0	0.0	3.0
	802.11acVHT80 CH106-138	14.0		1.5	6.0	0.0	5.5	0.0	2.5
5G U-NII-3	802.11a CH149-165	19.5	Ant.7	5.0	10.5	0.0	9.3	0.0	6.5
	802.11nHT20 CH149-165	19.0		5.8	11.0	0.0	10.0	0.0	7.6
	802.11nHT40 CH151-159	15.0		2.9	8.0	0.0	7.0	0.0	4.0
	802.11acVHT20 CH149-165	19.0		5.5	11.0	0.0	10.0	0.0	7.0

	802.11acVHT40 CH151-159	14.0		2.0	7.0	0.0	6.5	0.0	3.0
	802.11acVHT80 CH155	14.0		1.5	6.0	0.0	5.5	0.0	2.5

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.

$$SAR=C\Delta T/\Delta t$$

Where: Δt = Exposure time (30 seconds),

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

ΔT = Temperature increase due to RF exposure.

Or

$$SAR=|E|^2\sigma/\rho$$

Where: σ = Simulated tissue conductivity,

ρ = Tissue density (kg/m^3).

6.3 SAR Measurement Procedure

Power Reference Measurement

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

Area Scan

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

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

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.

			≤3GHz	> 3 GHz
Maximum zoom scan spatial resolution: $\triangle x_{zoom} \triangle y_{zoom}$			≤2GHz: ≤8mm 2 – 3GHz: ≤5mm*	3 – 4GHz: ≤5mm* 4 – 6GHz: ≤4mm*
Maximum zoom scan spatial resolution, normal to phantom surface	Uniform grid: $\triangle z_{zoom}(n)$		≤5mm	3 – 4GHz: ≤4mm 4 – 5GHz: ≤3mm 5 – 6GHz: ≤2mm
	Graded grid	$\triangle z_{zoom}(1)$: between 1st two points closest to phantom surface	≤4mm	3 – 4GHz: ≤3mm 4 – 5GHz: ≤2.5mm 5 – 6GHz: ≤2mm
		$\triangle z_{zoom}(n>1)$: between subsequent points	≤1.5•$\triangle z_{zoom}(n-1)$	
Minimum zoom scan volume	X, y, z		≥30mm	3 – 4GHz: ≥28mm 4 – 5GHz: ≥25mm 5 – 6GHz: ≥22mm
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 *reported* 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.				

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	2022-05-14	2023-05-13
Dielectric Probe Kit	SPEAG	DAK-12	1171	2022-10-29	2023-10-28
Power Meter	Agilent	E4417A	GB41291714	2022-05-14	2023-05-13
Power Sensor	Agilent	N8481H	MY50350004	2022-05-14	2023-05-13
Power Sensor	Agilent	E9327A	US40441622	2022-05-14	2023-05-13
Power Sensor	Agilent	NRP18S	101955	2022-05-14	2023-05-13
Signal Generator	Agilent	N5181A	MY50140143	2022-05-14	2023-05-13
Dual Directional Coupler	UCL	UCL-DDC056G-S	20010600118	/	/
Amplifier	INDEXSAR	TPA-005060G01	13030502	2022-05-14	2023-05-13
Wireless Communication Tester	Anritsu	MT8820C	6201342015	2021-12-12	2022-12-11
				2022-12-10	2023-12-09
Wireless Communication Tester	Agilent	E5515C	MY48360988	2021-12-12	2022-12-11
				2022-12-10	2023-12-09
Wireless communication tester	Starpoint	SP9500	20440	2021-12-12	2022-12-11
				2022-12-10	2023-12-09
Wireless Communication Tester	Anritsu	MT8000A	6261844783	2022-05-14	2023-05-13
Wireless Communication Tester	R&S	CMW 500	146734	2022-05-14	2023-05-13
E-field Probe	SPEAG	EX3DV4	3677	2022-07-08	2023-07-07
DAE	SPEAG	DAE4	1291	2022-03-24	2023-03-23
Validation Kit 750MHz	SPEAG	D750V3	1045	2020-08-28	2023-08-27
Validation Kit 835MHz	SPEAG	D835V2	4d020	2020-08-28	2023-08-27
Validation Kit 1750MHz	SPEAG	D1750V2	1033	2020-02-25	2023-02-24
Validation Kit 1900MHz	SPEAG	D1900V2	5d060	2020-08-27	2023-08-26
Validation Kit 2300MHz	SPEAG	D2300V2	1131	2022-09-09	2025-09-08
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 3500MHz	SPEAG	D3500V2	1083	2022-10-09	2025-10-08
Validation Kit 3700MHz	SPEAG	D3700V2	1048	2022-10-10	2025-10-09

Validation Kit 3900MHz	SPEAG	D3900V2	1027	2022-10-09	2025-10-08
Validation Kit 5GHz	SPEAG	D5GHzV2	1151	2020-02-27	2023-02-26
Software for Tissue	Agilent	85070	/	/	/
Temperature Probe	Tianjin jinming	JM222	381	2022-05-14	2023-05-13
Twin SAM Phantom	SPEAG	SAM2	1666	/	/
Hygrothermograph	Anymetr	HTC - 1	TY2020A003	2022-05-14	2023-05-13
TX90 XL	SPEAG	Staubli TX90 XL	/	/	/
Software for Test	SPEAG	DASY52	52.10.4.1527	/	/

8 Tissue Dielectric Parameter Measurements & System Check

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)	ε_r	σ(s/m)
750	41.9	0.89
835	41.5	0.90
1750	40.1	1.37
1900	40.0	1.40
2300	39.5	1.67
2450	39.2	1.80
2600	39.0	1.96
3500	37.9	2.91
3700	37.7	3.12
3900	37.5	3.32
5250	35.9	4.71
5600	35.5	5.07
5750	35.4	5.22

Measurements results
(Original)

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(%)
750	2022/12/3	21.5	42.3	0.88	41.9	0.89	0.95	-1.12
	2022/12/5	21.5	42.0	0.87	41.9	0.89	0.24	-2.25
835	2022/12/5	21.5	41.4	0.88	41.5	0.90	-0.24	-2.22
	2022/12/18	21.5	41.3	0.87	41.5	0.90	-0.48	-3.33
	2022/12/22	21.5	41.4	0.92	41.5	0.90	-0.24	2.22
1750	2022/12/10	21.5	40.2	1.34	40.1	1.37	0.25	-2.19
	2022/12/17	21.5	40.1	1.34	40.1	1.37	0.00	-2.19
	2022/12/18	21.5	40.2	1.36	40.1	1.37	0.25	-0.73
	2022/12/20	21.5	39.3	1.37	40.1	1.37	-2.00	0.00
1900	2022/12/4	21.5	40.1	1.41	40.0	1.40	0.25	0.71
	2022/12/6	21.5	40.2	1.43	40.0	1.40	0.50	2.14
	2022/12/12	21.5	40.0	1.40	40.0	1.40	0.00	0.00
	2022/12/14	21.5	40.5	1.34	40.0	1.40	1.25	-4.29
	2022/12/15	21.5	40.2	1.43	40.0	1.40	0.50	2.14
2300	2022/12/16	21.5	40.0	1.65	39.5	1.67	1.27	-1.20
2450	2022/12/21	21.5	38.6	1.81	39.2	1.80	-1.53	0.56
2600	2022/12/7	21.5	38.2	2.01	39.0	1.96	-2.05	2.55
	2022/12/11	21.5	38.4	1.94	39.0	1.96	-1.54	-1.02
	2022/12/13	21.5	38.3	1.99	39.0	1.96	-1.79	1.53
	2022/12/16	21.5	38.5	1.95	39.0	1.96	-1.28	-0.51
3500	2022/12/19	21.5	37.1	2.83	37.9	2.91	-2.11	-2.75
3700	2022/12/21	21.5	38.0	3.01	37.7	3.12	0.80	-3.53
3900	2022/12/21	21.5	37.9	3.42	37.5	3.32	1.07	3.01
5250	2022/12/8	21.5	35.5	4.80	35.9	4.71	-1.11	1.91
5600	2022/12/19	21.5	34.2	5.21	35.5	5.07	-3.66	2.76
5750	2022/12/9	21.5	34.9	5.21	35.4	5.22	-1.41	-0.19
Note: The depth of tissue-equivalent liquid in a phantom must be ≥ 15.0 cm for SAR measurements ≤ 3 GHz and ≥ 10.0 cm for measurements > 3 GHz.								

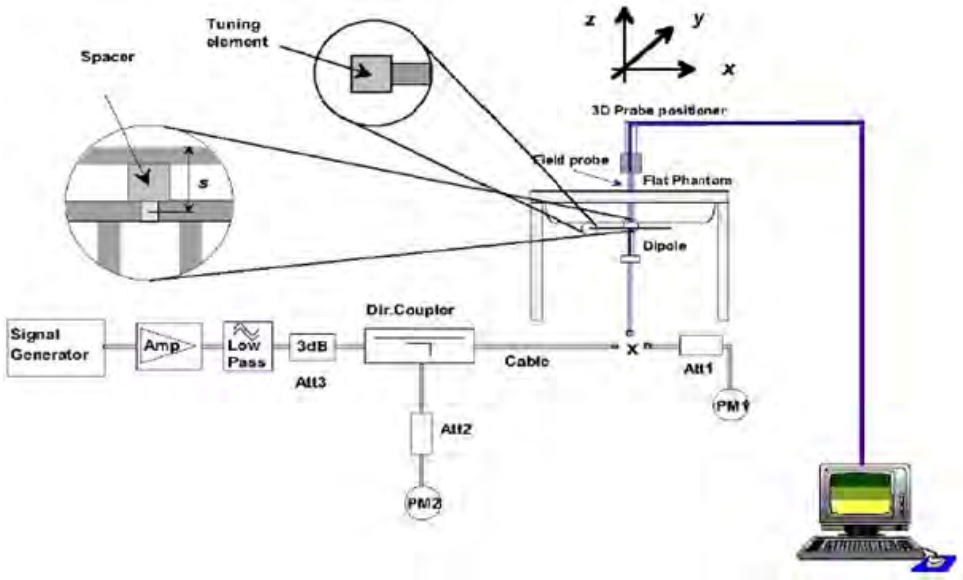
(Variant)

Frequency (MHz)	Test Date	Temp ℃	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	2023/1/11	21.5	41.4	0.88	41.5	0.90	-0.24	-2.22
1750	2023/1/11	21.5	40.1	1.34	40.1	1.37	0.00	-2.19
2450	2023/1/9	21.5	38.7	1.82	39.2	1.80	-1.28	1.11
2600	2023/1/9	21.5	38.4	1.94	39.0	1.96	-1.54	-1.02
3700	2023/1/10	21.5	38.1	3.03	37.7	3.12	1.06	-2.88
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.								

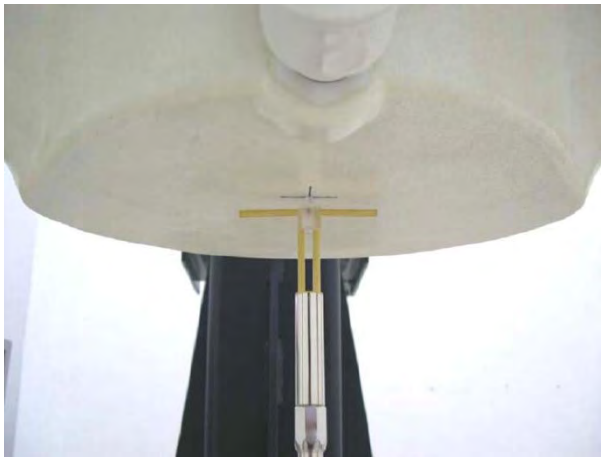
8.2 System Check

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

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



Picture 1 System 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)			
					Real	ΔΩ	Imaginary	ΔΩ
Dipole D750V3 SN: 1045	Head Liquid	8/28/2020	26.6	/	54.3	/	-2.29	/
		8/27/2021	26.2	-1.5	53.9	-0.4	-2.28	0.01
		8/26/2022	26.0	-0.8	52.1	-1.8	-2.25	0.03
Dipole D835V2 SN: 4d020	Head Liquid	8/28/2020	26.2	/	54.8	/	1.73	/
		8/27/2021	26.5	1.1	55.2	0.4	1.74	0.01
		8/26/2022	27.2	2.6	55.5	0.3	1.74	0
Dipole D1750V2 SN: 1033	Head Liquid	2/25/2020	38.3	/	48.8	/	-0.06	/
		2/24/2021	40.0	4.4	49.9	1.1	-0.06	0
		2/23/2022	40.6	1.5	51.1	1.2	-0.05	0.01
Dipole D1900V2 SN: 5d060	Head Liquid	8/27/2020	23.3	/	52.5	/	6.58	/
		8/26/2021	23.0	-1.3	51.9	-0.6	6.54	-0.04
		8/25/2022	22.2	-3.5	51.2	-0.7	6.53	-0.01
Dipole D2450V2 SN: 786	Head Liquid	8/27/2020	27.1	0.7	53.8	-0.7	1.43	-0.01
		8/26/2021	27.4	1.1	53.4	-0.4	1.43	0
		8/25/2022	22.9	/	50.1	/	-7.19	/
Dipole D2600V2 SN: 1025	Head Liquid	4/23/2021	22.4	-2.2	50.7	0.6	-7.23	-0.04
		4/22/2022	27.5	/	48.2	/	3.80	/
Dipole D5GHzV2 SN: 1151 (5250MHz)	Head Liquid	2/27/2020	23.4	/	52.4	/	-6.47	/
		2/26/2021	23.8	1.7	50.0	-2.4	-6.31	0.16
		2/25/2022	23.9	0.4	49.3	-0.7	-6.42	-0.11
Dipole D5GHzV2 SN: 1151 (5600MHz)	Head Liquid	2/27/2020	22.6	/	57.0	/	-3.86	/
		2/26/2021	21.5	-4.9	56.5	-0.9	-3.77	0.09
		2/25/2022	20.9	-2.8	56.3	-0.4	-3.83	-0.06
Dipole D5GHzV2 SN: 1151 (5750MHz)	Head Liquid	2/27/2020	25.0	/	55.9	/	0.16	/
		2/26/2021	26.8	-1.8	52.5	-3.4	0.15	-0.01
		2/25/2022	27.1	1.1	52.1	-0.4	0.16	0.01

System Check Results
(Original)

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.
750	2022/12/3	21.5	2.13	8.52	8.37	1.79	1
	2022/12/5	21.5	2.10	8.40	8.37	0.36	2
835	2022/12/5	21.5	2.44	9.76	9.65	1.14	3
	2022/12/18	21.5	2.46	9.84	9.65	1.97	4
	2022/12/22	21.5	2.43	9.72	9.65	0.73	5
1750	2022/12/10	21.5	8.95	35.80	35.90	-0.28	6
	2022/12/17	21.5	9.11	36.44	35.90	1.50	7
	2022/12/18	21.5	8.96	35.84	35.90	-0.17	8
	2022/12/20	21.5	8.99	35.96	35.90	0.17	9
1900	2022/12/4	21.5	9.88	39.52	39.50	0.05	10
	2022/12/6	21.5	9.85	39.40	39.50	-0.25	11
	2022/12/12	21.5	9.55	38.20	39.50	-3.29	12
	2022/12/14	21.5	9.60	38.40	39.50	-2.78	13
	2022/12/15	21.5	9.85	39.40	39.50	-0.25	14
2300	2022/12/16	21.5	12.36	49.44	50.10	-1.32	15
2450	2022/12/21	21.5	13.70	54.80	52.30	4.78	16
2600	2022/12/7	21.5	13.90	55.60	56.10	-0.89	17
	2022/12/11	21.5	13.88	55.52	56.10	-1.03	18
	2022/12/13	21.5	13.94	55.76	56.10	-0.61	19
	2022/12/16	21.5	13.90	55.60	56.10	-0.89	20
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.**
3500	2022/12/19	21.5	6.57	65.70	67.10	-2.09	21
3700	2022/12/21	21.5	6.83	68.30	67.20	1.64	22
3900	2022/12/21	21.5	6.83	68.30	71.50	-4.48	23
5250	2022/12/8	21.5	7.87	78.70	78.00	0.90	24
5600	2022/12/19	21.5	7.67	76.70	80.50	-4.72	25
5750	2022/12/9	21.5	7.66	76.60	77.40	-1.03	26
Note: Target Values used derive from the calibration certificate Data Storage and Evaluation.							

(Variant)

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	2023/1/11	21.5	2.44	9.76	9.65	1.14	27
1750	2023/1/11	21.5	9.11	36.44	35.90	1.50	28
2450	2023/1/9	21.5	13.52	54.08	52.30	3.40	29
2600	2023/1/9	21.5	13.88	55.52	56.10	-1.03	30
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.**
3700	2023/1/10	21.5	6.61	66.10	67.2	-1.64	31
Note: Target Values used derive from the calibration certificate Data Storage and Evaluation.							

8.3 SAR System Validation

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

Frequency [MHz]	Date	Probe SN	Probe Type	Probe Cal Point		PERM (Er)	COND (Σ)	CW Validation		
								Sensitivity	Probe Linearity	Probe Isotropy
750	2022/7/8	3677	EX3DV4	750	Head	41.9	0.89	PASS	PASS	PASS
835	2022/7/8	3677	EX3DV4	835	Head	41.5	0.90	PASS	PASS	PASS
1750	2022/7/8	3677	EX3DV4	1750	Head	40.1	1.37	PASS	PASS	PASS
1900	2022/7/8	3677	EX3DV4	1900	Head	40.0	1.40	PASS	PASS	PASS
2300	2022/7/8	3677	EX3DV4	2300	Head	39.5	1.67	PASS	PASS	PASS
2450	2022/7/8	3677	EX3DV4	2450	Head	39.2	1.80	PASS	PASS	PASS
2600	2022/7/8	3677	EX3DV4	2600	Head	39.0	1.96	PASS	PASS	PASS
3500	2022/7/8	3677	EX3DV4	3500	Head	37.9	2.91	PASS	PASS	PASS
3700	2022/7/8	3677	EX3DV4	3700	Head	37.7	3.12	PASS	PASS	PASS
3900	2022/7/8	3677	EX3DV4	3900	Head	37.5	3.32	PASS	PASS	PASS
5250	2022/7/8	3677	EX3DV4	5250	Head	35.9	4.71	PASS	PASS	PASS
5600	2022/7/8	3677	EX3DV4	5600	Head	35.5	5.07	PASS	PASS	PASS
5750	2022/7/8	3677	EX3DV4	5750	Head	35.4	5.22	PASS	PASS	PASS

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

9 Normal and Maximum Output Power

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

9.1 GSM Mode

GSM 850										
Normal Power & Receiver on & Receiver off &Hotspot on		Burst-Averaged Output Power(dBm)				Division Factors	Frame-Averaged output power(dBm)			
		Tune-up	Channel/Frequency(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	32.00	30.98	**30.81**	31.03	9.03	22.97	21.95	21.78	22.00
GPRS/EGPRS (GMSK)	1 Tx Slot	32.00	30.94	30.90	31.11	9.03	22.97	21.91	21.87	22.08
	2 Tx Slots	31.50	30.54	30.55	30.75	6.02	25.48	24.52	24.53	24.73
	3 Tx Slots	30.50	29.28	29.23	29.54	4.26	**26.24**	25.02	24.97	25.28
	4 Tx Slots	29.00	28.11	28.08	28.41	3.01	25.99	25.10	25.07	25.40
EGPRS (8PSK)	1 Tx Slot	29.00	28.00	28.02	27.94	9.03	19.97	18.97	18.99	18.91
	2 Tx Slots	28.00	27.50	27.24	27.11	6.02	21.98	21.48	21.22	21.09
	3 Tx Slots	26.00	25.63	25.21	25.38	4.26	21.74	21.37	20.95	21.12
	4 Tx Slots	25.00	24.48	24.08	24.21	3.01	21.99	21.47	21.07	21.20
Notes: The worst-case configuration and mode for SAR testing is determined to be as follows: Standalone: GSM 850 GMSK (GPRS) mode with 3 time slots for Max power, based on the output power measurements above.										

GSM 1900										
Normal Power & Receiver off & Hotspot on		Burst-Averaged Output Power(dBm)				Division Factors	Frame-Averaged output power(dBm)			
		Tune-up	Channel/Frequency(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	30.00	29.69	29.65	29.63	9.03	20.97	20.66	20.62	20.60
GPRS/EGPRS (GMSK)	1 Tx Slot	30.00	29.76	29.83	29.65	9.03	20.97	20.73	20.80	20.62
	2 Tx Slots	29.50	29.14	29.23	29.17	6.02	23.48	23.12	23.21	23.15
	3 Tx Slots	28.00	27.30	27.49	27.59	4.26	23.74	23.04	23.23	23.33
	4 Tx Slots	27.00	26.05	26.16	26.35	3.01	**23.99**	23.04	23.15	23.34
EGPRS (8PSK)	1 Tx Slot	26.80	26.47	25.91	25.90	9.03	17.77	17.44	16.88	16.87
	2 Tx Slots	26.00	25.28	24.79	24.97	6.02	19.98	19.26	18.77	18.95
	3 Tx Slots	24.00	22.80	23.41	23.33	4.26	19.74	18.54	19.15	19.07
	4 Tx Slots	23.00	21.72	22.21	21.65	3.01	19.99	18.71	19.20	18.64
Notes: The worst-case configuration and mode for SAR testing is determined to be as follows: Standalone: GSM 1900 GMSK (GPRS) mode with 4 time slots for Max power, based on the output power measurements above.										

GSM 1900										
Receiver on		Burst-Averaged Output Power(dBm)				Division	Frame-Averaged output power(dBm)			
		Tune-up	Channel/Frequency(MHz)				Tune-up	Channel/Frenqucy(MHz)		
		MAX	512/1850.2	661/1880	810/1909.8	Factors	MAX	512/1850.2	661/1880	810/1909.8
GSM	CS	29.00	28.16	28.22	28.53	9.03	19.97	19.13	19.19	19.50
GPRS/EGPRS (GMSK)	1 Tx Slot	29.00	28.15	28.26	28.52	9.03	19.97	19.12	19.23	19.49
	2 Tx Slots	28.50	27.28	27.45	27.74	6.02	**22.48**	21.26	21.43	21.72
	3 Tx Slots	26.50	25.50	25.77	26.03	4.26	22.24	21.24	21.51	21.77
	4 Tx Slots	25.00	23.94	24.03	24.32	3.01	21.99	20.93	21.02	21.31
EGPRS (8PSK)	1 Tx Slot	26.80	26.36	26.36	26.11	9.03	17.77	17.33	17.33	17.08
	2 Tx Slots	26.00	25.10	25.18	25.07	6.02	19.98	19.08	19.16	19.05
	3 Tx Slots	24.00	23.05	23.34	23.15	4.26	19.74	18.79	19.08	18.89
	4 Tx Slots	23.00	22.10	21.97	21.97	3.01	19.99	19.09	18.96	18.96
Notes: The worst-case configuration and mode for SAR testing is determined to be as follows: Standalone: GSM 1900 GMSK (GPRS) mode with 2 time slots for Max power, based on the output power measurements above.										

9.2 WCDMA Mode

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

WCDMA Band II					
Normal power		Maximum Output Power (dBm)			
		Channel/Frequency(MHz)			Tune-up
		9262/1852.4	9400/1880	9538/1907.6	
RMC	12.2k	23.55	**23.65**	23.76	24.00
AMR	12.2k	23.55	23.69	23.66	24.00
HSDPA	Subtest 1	22.49	22.59	22.84	23.00
	Subtest 2	22.55	22.61	22.92	23.00
	Subtest 3	21.93	22.09	22.30	22.50
	Subtest 4	21.89	22.05	22.14	22.50
HSUPA	Subtest 1	21.04	21.12	21.19	22.50
	Subtest 2	20.59	20.53	20.68	21.00
	Subtest 3	21.43	21.45	21.56	22.00
	Subtest 4	20.17	20.31	20.16	20.50
	Subtest 5	21.53	21.57	21.74	22.50
DC-HSDPA	Subtest 1	22.43	22.53	22.78	23.00
	Subtest 2	22.47	22.53	22.76	23.00
	Subtest 3	22.19	22.27	22.22	22.50
	Subtest 4	22.03	22.15	22.28	22.50
HSPA+	16QAM	21.38	21.64	21.63	22.00
Note: 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					
Receiver on		Maximum Output Power (dBm)			
		Channel/Frequency(MHz)			Tune-up
		9262/1852.4	9400/1880	9538/1907.6	
RMC	12.2k	19.16	**19.22**	19.38	20.00
AMR	12.2k	19.10	19.38	19.26	20.00
HSDPA	Subtest 1	18.02	18.28	18.26	19.00
	Subtest 2	18.18	18.08	18.24	19.00
	Subtest 3	17.56	17.84	17.96	19.00
	Subtest 4	17.70	17.62	17.90	19.00
HSUPA	Subtest 1	16.83	16.69	16.99	18.00
	Subtest 2	16.28	16.30	16.52	17.50
	Subtest 3	16.96	17.14	17.24	18.50
	Subtest 4	15.64	15.72	15.74	16.50
	Subtest 5	17.00	17.12	17.50	18.50

DC-HSDPA	Subtest 1	18.06	18.16	18.48	19.00
	Subtest 2	18.20	18.26	18.54	19.00
	Subtest 3	17.62	17.64	18.00	19.00
	Subtest 4	17.74	17.64	18.02	19.00
Note: 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					
Receiver off & Hotspot on		Maximum Output Power (dBm)			
		Channel/Frequency(MHz)			Tune-up
		9262/1852.4	9400/1880	9538/1907.6	
RMC	12.2k	22.48	**22.62**	22.75	23.50
AMR	12.2k	22.64	22.68	22.81	23.50
HSDPA	Subtest 1	21.50	21.54	21.87	22.50
	Subtest 2	21.50	21.70	21.61	22.50
	Subtest 3	21.14	21.10	21.41	22.50
	Subtest 4	20.96	21.06	21.21	22.00
HSUPA	Subtest 1	19.89	20.15	20.38	21.00
	Subtest 2	19.34	19.74	19.77	20.50
	Subtest 3	20.34	20.42	20.73	21.50
	Subtest 4	19.00	18.98	19.41	20.30
	Subtest 5	20.56	20.60	20.59	21.50
DC-HSDPA	Subtest 1	21.40	21.72	21.91	22.50
	Subtest 2	21.34	21.72	21.81	22.50
	Subtest 3	21.02	20.96	21.41	22.50
	Subtest 4	21.02	21.16	21.35	22.00
HSPA+	16QAM	20.31	20.43	20.62	21.50
Note: Per KDB 941225 D01, SAR for each exposure is measured using a 12.2 kbps RMC with TPC bits configured to all "1's".					

WCDMA Band IV					
Normal power		Maximum Output Power (dBm)			
		Channel/Frequency(MHz)			Tune-up
		1312/1712.4	1413/1732.6	1513/1752.6	
RMC	12.2k	23.56	**23.45**	23.28	24.00
AMR	12.2k	23.56	23.29	23.32	24.00
HSDPA	Subtest 1	22.52	22.33	22.40	23.00
	Subtest 2	22.52	22.41	22.34	23.00
	Subtest 3	21.94	22.07	21.74	22.50
	Subtest 4	22.18	21.87	21.90	22.50
HSUPA	Subtest 1	21.03	20.86	20.89	22.50
	Subtest 2	20.62	20.41	20.32	21.00
	Subtest 3	21.44	21.23	21.30	21.50

	Subtest 4	20.18	19.95	19.68	20.50
	Subtest 5	21.66	21.59	21.32	22.50
DC-HSDPA	Subtest 1	22.42	22.49	22.34	23.00
	Subtest 2	22.42	22.47	22.30	23.00
	Subtest 3	21.96	21.95	21.90	22.50
	Subtest 4	22.18	21.97	21.94	22.50
HSPA+	16QAM	21.39	21.24	21.05	22.00
Note: Per KDB 941225 D01, SAR for each exposure is measured using a 12.2 kbps RMC with TPC bits configured to all “1’s”.					

WCDMA Band IV					
Receiver on		Maximum Output Power (dBm)			
		Channel/Frequency(MHz)			Tune-up
		1312/1712.4	1413/1732.6	1513/1752.6	
RMC	12.2k	20.50	**20.38**	20.22	21.30
AMR	12.2k	20.40	20.46	20.24	21.30
HSDPA	Subtest 1	19.58	19.46	19.28	20.30
	Subtest 2	19.50	19.44	19.30	20.30
	Subtest 3	19.12	18.80	18.82	20.00
	Subtest 4	19.10	18.86	18.62	19.80
HSUPA	Subtest 1	17.91	17.77	17.83	18.80
	Subtest 2	17.40	17.46	17.24	18.30
	Subtest 3	18.42	18.22	17.96	19.30
	Subtest 4	17.14	17.02	16.74	17.80
	Subtest 5	18.50	18.36	18.08	19.30
DC-HSDPA	Subtest 1	19.56	19.44	19.12	20.30
	Subtest 2	19.60	19.32	19.24	20.30
	Subtest 3	19.12	18.76	18.84	20.00
	Subtest 4	19.08	18.78	18.84	19.80
HSPA+	16QAM	18.47	18.37	17.97	19.50
Note: Per KDB 941225 D01, SAR for each exposure is measured using a 12.2 kbps RMC with TPC bits configured to all “1’s”.					

WCDMA Band IV					
Receiver off&Hotspot on		Maximum Output Power (dBm)			
		Channel/Frequency(MHz)			Tune-up
		1312/1712.4	1413/1732.6	1513/1752.6	
RMC	12.2k	22.56	**22.46**	22.27	23.30
AMR	12.2k	22.60	22.62	22.21	23.30
HSDPA	Subtest 1	21.72	21.44	21.41	22.50
	Subtest 2	21.40	21.56	21.37	22.30
	Subtest 3	21.12	21.04	20.69	21.90
	Subtest 4	21.18	20.98	20.75	21.90

HSUPA	Subtest 1	20.01	20.07	19.68	20.90
	Subtest 2	19.62	19.60	19.27	20.50
	Subtest 3	20.52	20.50	20.31	21.50
	Subtest 4	18.96	18.86	18.79	19.90
	Subtest 5	20.72	20.50	20.21	21.50
DC-HSDPA	Subtest 1	21.58	21.44	21.35	22.50
	Subtest 2	21.54	21.50	21.15	22.30
	Subtest 3	21.12	20.98	20.93	21.90
	Subtest 4	20.90	21.10	20.91	21.90
HSPA+	16QAM	20.39	20.49	20.26	21.50
Note: Per KDB 941225 D01, SAR for each exposure is measured using a 12.2 kbps RMC with TPC bits configured to all “1’s”.					

WCDMA Band V					
Normal power & Receiver on & Receiver off & Hotspot on		Maximum Output Power (dBm)			
		Channel/Frequency(MHz)			Tune-up
		4132/826.4	4183/836.6	4233/846.6	
RMC	12.2k	23.02	**22.96**	23.06	24.00
AMR	12.2k	23.16	22.80	23.12	24.00
HSDPA	Subtest 1	22.06	22.08	22.02	23.00
	Subtest 2	22.18	21.92	21.98	22.50
	Subtest 3	21.42	21.62	21.70	22.00
	Subtest 4	21.48	21.56	21.44	22.00
HSUPA	Subtest 1	20.74	20.52	20.56	21.50
	Subtest 2	19.82	20.02	19.98	20.50
	Subtest 3	20.84	20.86	21.00	21.50
	Subtest 4	19.50	19.56	19.56	20.50
	Subtest 5	21.18	20.92	21.16	22.50
DC-HSDPA	Subtest 1	22.02	22.10	22.20	23.00
	Subtest 2	21.92	22.08	22.04	22.50
	Subtest 3	21.54	21.54	21.54	22.00
	Subtest 4	21.60	21.40	21.60	22.00
HSPA+	16QAM	20.99	20.81	20.87	22.00
Note: Per KDB 941225 D01, SAR for each exposure is measured using a 12.2 kbps RMC with TPC bits configured to all “1’s”.					

9.3 LTE Mode

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

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

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

LTE Band 2							
Normal power-Main Ant2				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				18607/1850.7	18900/1880	19193/1909.3	
1.4MHz	QPSK	1	0	23.75	23.98	23.82	24.50
		1	2	23.79	23.92	23.90	24.50
		1	5	23.73	23.82	23.89	24.50
		3	0	23.72	23.83	23.83	24.50
		3	2	23.70	23.82	23.86	24.50
		3	3	23.65	23.80	23.74	24.50
		6	0	22.70	22.87	22.86	23.50
	16QAM	1	0	22.84	23.15	23.13	23.50
		1	2	22.96	23.14	23.19	23.50
		1	5	22.89	23.06	23.20	23.50
		3	0	22.82	22.87	22.93	23.50
		3	2	22.83	22.93	22.99	23.50
		3	3	22.75	22.91	22.82	23.50
		6	0	21.81	21.98	21.99	22.50
	64QAM	1	0	22.06	22.16	22.03	22.50
		1	2	22.06	22.07	22.09	22.50
		1	5	22.02	22.18	22.09	22.50
		3	0	21.82	21.86	21.93	22.50
		3	2	21.83	21.91	21.97	22.50
		3	3	21.73	21.90	21.83	22.50
		6	0	20.83	20.99	20.98	21.50

Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				18615/1851.5	18900/1880	19185/1908.5	
3MHz	QPSK	1	0	23.77	24.02	23.85	24.50
		1	7	23.77	23.95	23.94	24.50
		1	14	23.76	23.87	23.93	24.50
		8	0	22.82	22.95	22.96	23.50
		8	4	22.82	22.92	22.98	23.50
		8	7	22.75	22.91	22.84	23.50
		15	0	22.70	22.91	22.89	23.50
	16QAM	1	0	22.84	23.17	23.16	23.50
		1	7	22.96	23.14	23.23	23.50
		1	14	22.91	23.10	23.23	23.50
		8	0	21.93	22.00	22.05	22.50
		8	4	21.94	22.06	22.11	22.50
		8	7	21.85	22.03	21.95	22.50
		15	0	21.84	22.02	22.02	22.50
	64QAM	1	0	22.09	22.18	22.06	22.50
		1	7	22.09	22.07	22.11	22.50
		1	14	22.04	22.17	22.12	22.50
		8	0	20.93	20.99	21.05	21.50
		8	4	20.94	21.04	21.09	21.50
		8	7	20.83	21.02	20.96	21.50
		15	0	20.86	21.03	21.01	21.50

Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				18625/1852.5	18900/1880	19175/1907.5	
5MHz	QPSK	1	0	23.74	24.00	23.81	24.50
		1	13	23.75	23.91	23.91	24.50
		1	24	23.73	23.82	23.89	24.50
		12	0	22.79	22.90	22.92	23.50
		12	6	22.80	22.88	22.93	23.50
		12	13	22.73	22.89	22.80	23.50
		25	0	22.70	22.90	22.87	23.50
	16QAM	1	0	22.84	23.13	23.13	23.50
		1	13	22.96	23.12	23.20	23.50
		1	24	22.88	23.08	23.19	23.50
		12	0	21.91	21.96	22.02	22.50
		12	6	21.91	22.01	22.07	22.50
		12	13	21.82	21.98	21.91	22.50
		25	0	21.82	21.98	21.97	22.50
	64QAM	1	0	22.06	22.18	22.03	22.50
		1	13	22.06	22.09	22.08	22.50
		1	24	22.05	22.15	22.08	22.50

		12	0	20.91	20.95	21.06	21.50
		12	6	20.91	20.99	21.05	21.50
		12	13	20.80	20.97	20.92	21.50
		25	0	20.84	20.99	20.96	21.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				18650/1855	18900/1880	19150/1905	
10MHz	QPSK	1	0	23.76	24.01	23.84	24.50
		1	25	23.78	23.96	23.95	24.50
		1	49	23.75	23.86	23.92	24.50
		25	0	22.82	22.95	22.96	23.50
		25	13	22.83	22.93	22.97	23.50
		25	25	22.75	22.93	22.85	23.50
		50	0	22.74	22.92	22.91	23.50
	16QAM	1	0	22.88	23.16	23.15	23.50
		1	25	23.00	23.16	23.23	23.50
		1	49	22.91	23.10	23.22	23.50
		25	0	21.94	22.01	22.06	22.50
		25	13	21.93	22.05	22.10	22.50
		25	25	21.85	22.03	21.95	22.50
		50	0	21.85	22.03	22.01	22.50
	64QAM	1	0	22.08	22.17	22.05	22.50
		1	25	22.09	22.09	22.11	22.50
		1	49	22.04	22.17	22.11	22.50
		25	0	20.94	21.00	21.06	21.50
		25	13	20.93	21.03	21.08	21.50
		25	25	20.83	21.02	20.96	21.50
		50	0	20.87	21.04	21.00	21.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				18675/1857.5	18900/1880	19125/1902.5	
15MHz	QPSK	1	0	23.75	23.97	23.82	24.50
		1	38	23.76	23.95	23.92	24.50
		1	74	23.72	23.81	23.88	24.50
		36	0	22.80	22.91	22.93	23.50
		36	18	22.80	22.88	22.93	23.50
		36	39	22.72	22.90	22.81	23.50
		75	0	22.72	22.88	22.86	23.50
	16QAM	1	0	22.86	23.14	23.13	23.50
		1	38	22.98	23.13	23.21	23.50
		1	74	22.89	23.06	23.19	23.50
		36	0	21.91	21.99	22.03	22.50
		36	18	21.90	22.00	22.06	22.50
		36	39	21.83	21.99	21.92	22.50

		75	0	21.82	21.98	21.97	22.50
	64QAM	1	0	22.03	22.15	22.03	22.50
		1	38	22.07	22.06	22.09	22.50
		1	74	22.05	22.16	22.12	22.50
		36	0	20.93	21.02	21.07	21.50
		36	18	20.91	21.00	21.07	21.50
		36	39	20.81	20.98	20.93	21.50
		75	0	20.84	20.99	20.96	21.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				18700/1860	18900/1880	19100/1900	
20MHz	QPSK	1	0	23.72	**23.93**	23.79	24.50
		1	50	**23.75**	23.91	**23.90**	24.50
		1	99	23.70	23.80	23.85	24.50
		50	0	22.77	**22.86**	22.89	23.50
		50	25	**22.78**	22.84	**22.90**	23.50
		50	50	22.69	22.85	22.77	23.50
		100	0	22.69	**22.83**	22.82	23.50
	16QAM	1	0	22.83	23.10	23.08	23.50
		1	50	22.95	23.11	23.17	23.50
		1	99	22.86	23.03	23.17	23.50
		50	0	21.88	21.95	22.00	22.50
		50	25	21.87	21.98	22.03	22.50
		50	50	21.80	21.94	21.88	22.50
		100	0	21.80	21.94	21.94	22.50
	64QAM	1	0	22.01	22.11	21.98	22.50
		1	50	22.03	22.04	22.05	22.50
		1	99	21.99	22.10	22.06	22.50
		50	0	20.88	20.94	21.00	21.50
		50	25	20.87	20.96	21.01	21.50
		50	50	20.78	20.93	20.89	21.50
		100	0	20.82	20.95	20.93	21.50

LTE Band 2							
Receiver on-Main Ant2				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				18607/1850.7	18900/1880	19193/1909.3	
1.4MHz	QPSK	1	0	19.00	19.08	19.09	19.50
		1	2	19.11	19.17	19.13	19.50
		1	5	18.98	19.04	19.12	19.50
		3	0	19.22	19.20	19.23	19.50
		3	2	19.16	19.27	19.30	19.50
		3	3	19.14	19.20	19.15	19.50

		6	0	19.06	19.10	19.09	19.50
	16QAM	1	0	19.36	19.33	19.41	19.50
		1	2	19.34	19.43	19.42	19.50
		1	5	19.29	19.27	19.47	19.50
		3	0	19.22	19.17	19.21	19.50
		3	2	19.21	19.29	19.28	19.50
		3	3	19.12	19.21	19.13	19.50
		6	0	19.05	19.12	19.11	19.50
	64QAM	1	0	19.17	19.21	19.29	19.50
		1	2	19.28	19.41	19.33	19.50
		1	5	19.11	19.24	19.35	19.50
		3	0	19.23	19.17	19.20	19.50
		3	2	19.18	19.26	19.29	19.50
		3	3	19.15	19.21	19.12	19.50
		6	0	19.07	19.13	19.11	19.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				18615/1851.5	18900/1880	19185/1908.5	
3MHz	QPSK	1	0	19.02	19.12	19.12	19.50
		1	7	19.09	19.20	19.17	19.50
		1	14	19.01	19.09	19.16	19.50
		8	0	19.15	19.15	19.19	19.50
		8	4	19.11	19.20	19.25	19.50
		8	7	19.07	19.14	19.08	19.50
		15	0	19.06	19.14	19.12	19.50
	16QAM	1	0	19.39	19.35	19.44	19.50
		1	7	19.37	19.43	19.46	19.50
		1	14	19.31	19.31	19.50	19.50
		8	0	19.16	19.13	19.16	19.50
		8	4	19.15	19.25	19.23	19.50
		8	7	19.05	19.16	19.09	19.50
		15	0	19.08	19.16	19.14	19.50
	64QAM	1	0	19.20	19.23	19.32	19.50
		1	7	19.31	19.41	19.35	19.50
		1	14	19.13	19.23	19.38	19.50
		8	0	19.17	19.13	19.15	19.50
		8	4	19.12	19.22	19.24	19.50
		8	7	19.08	19.16	19.08	19.50
		15	0	19.10	19.17	19.14	19.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				18625/1852.5	18900/1880	19175/1907.5	
5MHz	QPSK	1	0	18.99	19.10	19.08	19.50
		1	13	19.07	19.16	19.14	19.50

		1	24	18.98	19.04	19.12	19.50
		12	0	19.12	19.10	19.15	19.50
		12	6	19.09	19.16	19.20	19.50
		12	13	19.05	19.12	19.04	19.50
		25	0	19.06	19.13	19.10	19.50
	16QAM	1	0	19.36	19.31	19.41	19.50
		1	13	19.34	19.41	19.43	19.50
		1	24	19.28	19.29	19.46	19.50
		12	0	19.14	19.09	19.13	19.50
		12	6	19.12	19.20	19.19	19.50
		12	13	19.02	19.11	19.05	19.50
		25	0	19.06	19.12	19.09	19.50
	64QAM	1	0	19.17	19.23	19.29	19.50
		1	13	19.28	19.43	19.32	19.50
		1	24	19.14	19.21	19.34	19.50
		12	0	19.15	19.09	19.16	19.50
		12	6	19.09	19.17	19.20	19.50
		12	13	19.05	19.11	19.04	19.50
		25	0	19.08	19.13	19.09	19.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				18650/1855	18900/1880	19150/1905	
10MHz	QPSK	1	0	19.01	19.11	19.11	19.50
		1	25	19.10	19.21	19.18	19.50
		1	49	19.00	19.08	19.15	19.50
		25	0	19.15	19.15	19.19	19.50
		25	13	19.12	19.21	19.24	19.50
		25	25	19.07	19.16	19.09	19.50
		50	0	19.10	19.15	19.14	19.50
	16QAM	1	0	19.38	19.34	19.43	19.50
		1	25	19.37	19.45	19.46	19.50
		1	49	19.31	19.31	19.49	19.50
		25	0	19.17	19.14	19.17	19.50
		25	13	19.14	19.24	19.22	19.50
		25	25	19.05	19.16	19.09	19.50
		50	0	19.09	19.17	19.13	19.50
	64QAM	1	0	19.19	19.22	19.31	19.50
		1	25	19.31	19.43	19.35	19.50
		1	49	19.13	19.23	19.37	19.50
		25	0	19.18	19.14	19.16	19.50
		25	13	19.11	19.21	19.23	19.50
		25	25	19.08	19.16	19.08	19.50
		50	0	19.11	19.18	19.13	19.50

Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				18675/1857.5	18900/1880	19125/1902.5	
15MHz	QPSK	1	0	19.00	19.07	19.09	19.50
		1	38	19.08	19.20	19.15	19.50
		1	74	18.97	19.03	19.11	19.50
		36	0	19.13	19.11	19.16	19.50
		36	18	19.09	19.16	19.20	19.50
		36	39	19.04	19.13	19.05	19.50
		75	0	19.08	19.11	19.09	19.50
	16QAM	1	0	19.33	19.32	19.41	19.50
		1	38	19.35	19.42	19.44	19.50
		1	74	19.28	19.27	19.46	19.50
		36	0	19.14	19.12	19.14	19.50
		36	18	19.11	19.19	19.18	19.50
		36	39	19.03	19.12	19.06	19.50
		75	0	19.06	19.12	19.09	19.50
	64QAM	1	0	19.14	19.20	19.29	19.50
		1	38	19.29	19.40	19.33	19.50
		1	74	19.14	19.22	19.38	19.50
		36	0	19.17	19.16	19.17	19.50
		36	18	19.09	19.18	19.22	19.50
		36	39	19.06	19.12	19.05	19.50
		75	0	19.08	19.13	19.09	19.50

Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				18700/1860	18900/1880	19100/1900	
20MHz	QPSK	1	0	18.97	19.03	19.06	19.50
		1	50	**19.07**	**19.16**	**19.13**	19.50
		1	99	18.95	19.02	19.08	19.50
		50	0	**19.10**	19.06	19.12	19.50
		50	25	19.07	**19.12**	**19.17**	19.50
		50	50	19.01	19.08	19.01	19.50
		100	0	19.05	**19.06**	19.05	19.50
	16QAM	1	0	19.18	19.28	19.36	19.50
		1	50	19.31	19.40	19.40	19.50
		1	99	19.26	19.24	19.44	19.50
		50	0	19.11	19.08	19.11	19.50
		50	25	19.08	19.17	19.15	19.50
		50	50	19.00	19.07	19.02	19.50
		100	0	19.04	19.08	19.06	19.50
	64QAM	1	0	19.12	19.16	19.24	19.50
		1	50	19.25	19.38	19.29	19.50
		1	99	19.08	19.16	19.32	19.50

		50	0	19.12	19.08	19.10	19.50
		50	25	19.05	19.14	19.16	19.50
		50	50	19.03	19.07	19.01	19.50
		100	0	19.06	19.09	19.06	19.50

LTE Band 2							
Receiver off-Main Ant2				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				18607/1850.7	18900/1880	19193/1909.3	
1.4MHz	QPSK	1	0	22.96	23.08	23.01	23.50
		1	2	22.96	23.13	23.06	23.50
		1	5	22.95	22.95	23.13	23.50
		3	0	23.03	23.19	23.17	23.50
		3	2	22.96	23.15	23.16	23.50
		3	3	22.95	23.14	23.05	23.50
		6	0	22.93	23.15	23.11	23.50
	16QAM	1	0	23.05	23.28	23.24	23.50
		1	2	23.14	23.28	23.28	23.50
		1	5	23.11	23.24	23.27	23.50
		3	0	22.86	22.94	22.97	23.50
		3	2	22.90	22.97	23.03	23.50
		3	3	22.80	23.01	22.90	23.50
		6	0	21.88	22.05	22.03	22.50
	64QAM	1	0	22.01	22.02	22.11	22.50
		1	2	22.07	22.09	22.26	22.50
		1	5	22.02	22.12	22.20	22.50
		3	0	21.88	21.98	22.01	22.50
		3	2	21.88	21.97	22.06	22.50
		3	3	21.78	21.98	21.89	22.50
		6	0	20.87	21.04	21.04	21.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				18615/1851.5	18900/1880	19185/1908.5	
3MHz	QPSK	1	0	22.93	23.04	22.98	23.50
		1	7	22.95	23.09	23.04	23.50
		1	14	22.93	22.94	23.10	23.50
		8	0	23.00	23.14	23.13	23.50
		8	4	22.94	23.11	23.13	23.50
		8	7	22.92	23.09	23.01	23.50
		15	0	22.90	23.10	23.07	23.50
	16QAM	1	0	23.05	23.30	23.27	23.50
		1	7	23.14	23.28	23.32	23.50
		1	14	23.13	23.28	23.30	23.50

		8	0	21.97	22.07	22.09	22.50
		8	4	22.01	22.10	22.15	22.50
		8	7	21.90	22.13	22.03	22.50
		15	0	21.91	22.09	22.06	22.50
		1	0	22.04	22.04	22.14	22.50
		1	7	22.10	22.09	22.28	22.50
		1	14	22.04	22.11	22.23	22.50
	64QAM	8	0	20.99	21.11	21.13	21.50
		8	4	20.99	21.10	21.18	21.50
		8	7	20.88	21.10	21.02	21.50
		15	0	20.90	21.08	21.07	21.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				18625/1852.5	18900/1880	19175/1907.5	
5MHz		1	0	22.90	23.02	22.94	23.50
		1	13	22.93	23.05	23.01	23.50
		1	24	22.90	22.89	23.06	23.50
	QPSK	12	0	22.97	23.09	23.09	23.50
		12	6	22.92	23.07	23.08	23.50
		12	13	22.90	23.07	22.97	23.50
		25	0	22.90	23.09	23.05	23.50
		1	0	23.05	23.26	23.24	23.50
		1	13	23.14	23.26	23.29	23.50
		1	24	23.10	23.26	23.26	23.50
	16QAM	12	0	21.95	22.03	22.06	22.50
		12	6	21.98	22.05	22.11	22.50
		12	13	21.87	22.08	21.99	22.50
		25	0	21.89	22.05	22.01	22.50
		1	0	22.01	22.04	22.11	22.50
		1	13	22.07	22.11	22.25	22.50
		1	24	22.05	22.09	22.19	22.50
	64QAM	12	0	20.97	21.07	21.14	21.50
		12	6	20.96	21.05	21.14	21.50
		12	13	20.85	21.05	20.98	21.50
		25	0	20.88	21.04	21.02	21.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				18650/1855	18900/1880	19150/1905	
10MHz		1	0	22.92	23.03	22.97	23.50
		1	25	22.96	23.10	23.05	23.50
		1	49	22.92	22.93	23.09	23.50
	QPSK	25	0	23.00	23.14	23.13	23.50
		25	13	22.95	23.12	23.12	23.50
		25	25	22.92	23.11	23.02	23.50

		50	0	22.94	23.11	23.09	23.50
	16QAM	1	0	23.09	23.29	23.26	23.50
		1	25	23.18	23.30	23.32	23.50
		1	49	23.13	23.28	23.29	23.50
		25	0	21.98	22.08	22.10	22.50
		25	13	22.00	22.09	22.14	22.50
		25	25	21.90	22.13	22.03	22.50
		50	0	21.92	22.10	22.05	22.50
	64QAM	1	0	22.03	22.03	22.13	22.50
		1	25	22.10	22.11	22.28	22.50
		1	49	22.04	22.11	22.22	22.50
		25	0	21.00	21.12	21.14	21.50
		25	13	20.98	21.09	21.17	21.50
		25	25	20.88	21.10	21.02	21.50
		50	0	20.91	21.09	21.06	21.50

Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				18675/1857.5	18900/1880	19125/1902.5	
15MHz	QPSK	1	0	22.91	22.99	22.95	23.50
		1	38	22.94	23.09	23.02	23.50
		1	74	22.89	22.88	23.05	23.50
		36	0	22.98	23.10	23.10	23.50
		36	18	22.92	23.07	23.08	23.50
		36	39	22.89	23.08	22.98	23.50
		75	0	22.92	23.07	23.04	23.50
	16QAM	1	0	23.07	23.27	23.24	23.50
		1	38	23.16	23.27	23.30	23.50
		1	74	23.11	23.24	23.26	23.50
		36	0	21.95	22.06	22.07	22.50
		36	18	21.97	22.04	22.10	22.50
		36	39	21.88	22.09	22.00	22.50
		75	0	21.89	22.05	22.01	22.50
	64QAM	1	0	21.98	22.01	22.11	22.50
		1	38	22.08	22.08	22.26	22.50
		1	74	22.05	22.10	22.23	22.50
		36	0	20.99	21.14	21.15	21.50
		36	18	20.96	21.06	21.16	21.50
		36	39	20.86	21.06	20.99	21.50
		75	0	20.88	21.04	21.02	21.50

Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				18700/1860	18900/1880	19100/1900	
20MHz	QPSK	1	0	22.88	22.95	22.92	23.50
		1	50	**22.93**	**23.05**	23.00	23.50

		1	99	22.87	22.87	**23.02**	23.50
		50	0	**22.95**	**23.05**	**23.06**	23.50
		50	25	22.90	23.03	23.05	23.50
		50	50	22.86	23.03	22.94	23.50
		100	0	22.89	**23.02**	23.00	23.50
	16QAM	1	0	23.04	23.23	23.19	23.50
		1	50	23.13	23.25	23.26	23.50
		1	99	23.08	23.21	23.24	23.50
		50	0	21.92	22.02	22.04	22.50
		50	25	21.94	22.02	22.07	22.50
		50	50	21.85	22.04	21.96	22.50
		100	0	21.87	22.01	21.98	22.50
	64QAM	1	0	21.96	21.97	22.06	22.50
		1	50	22.04	22.06	22.22	22.50
		1	99	21.99	22.04	22.17	22.50
		50	0	20.94	21.06	21.08	21.50
		50	25	20.92	21.02	21.10	21.50
		50	50	20.83	21.01	20.95	21.50
		100	0	20.86	21.00	20.99	21.50

LTE Band 2							
Hotspot on-Main Ant2				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				18607/1850.7	18900/1880	19193/1909.3	
1.4MHz	QPSK	1	0	21.53	21.74	21.67	22.50
		1	2	21.50	21.72	21.74	22.50
		1	5	21.51	21.69	21.80	22.50
		3	0	21.62	21.85	21.80	22.50
		3	2	21.62	21.82	21.82	22.50
		3	3	21.55	21.75	21.70	22.50
		6	0	21.55	21.81	21.78	22.50
	16QAM	1	0	21.76	21.99	21.95	22.50
		1	2	21.81	21.93	22.00	22.50
		1	5	21.79	21.96	21.93	22.50
		3	0	21.64	21.69	21.74	22.50
		3	2	21.66	21.77	21.81	22.50
		3	3	21.54	21.77	21.69	22.50
		6	0	21.56	21.78	21.73	22.50
	64QAM	1	0	21.73	21.80	21.94	22.50
		1	2	21.76	21.78	21.86	22.50
		1	5	21.71	21.82	21.82	22.50
		3	0	21.22	21.30	21.33	22.50

		3	2	21.20	21.36	21.41	22.50
		3	3	21.11	21.37	21.26	22.50
		6	0	21.13	21.36	21.34	22.00
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				18615/1851.5	18900/1880	19185/1908.5	
3MHz	QPSK	1	0	21.49	21.66	21.62	22.50
		1	7	21.47	21.67	21.69	22.50
		1	14	21.46	21.63	21.73	22.50
		8	0	21.57	21.76	21.73	22.50
		8	4	21.57	21.73	21.75	22.50
		8	7	21.49	21.67	21.62	22.50
		15	0	21.50	21.72	21.69	22.50
	16QAM	1	0	21.71	21.93	21.88	22.50
		1	7	21.76	21.88	21.94	22.50
		1	14	21.74	21.89	21.88	22.50
		8	0	21.58	21.63	21.68	22.50
		8	4	21.60	21.70	21.74	22.50
		8	7	21.49	21.68	21.62	22.50
		15	0	21.51	21.69	21.66	22.50
	64QAM	1	0	21.66	21.74	21.87	22.50
		1	7	21.70	21.73	21.80	22.50
		1	14	21.66	21.75	21.77	22.50
		8	0	21.16	21.24	21.27	22.00
		8	4	21.14	21.29	21.34	22.00
		8	7	21.06	21.28	21.19	22.00
		15	0	21.08	21.27	21.27	22.00
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				18625/1852.5	18900/1880	19175/1907.5	
5MHz	QPSK	1	0	21.46	21.64	21.58	22.50
		1	13	21.45	21.63	21.66	22.50
		1	24	21.43	21.58	21.69	22.50
		12	0	21.54	21.71	21.69	22.50
		12	6	21.55	21.69	21.70	22.50
		12	13	21.47	21.65	21.58	22.50
		25	0	21.50	21.71	21.67	22.50
	16QAM	1	0	21.71	21.89	21.85	22.50
		1	13	21.76	21.86	21.91	22.50
		1	24	21.71	21.87	21.84	22.50
		12	0	21.56	21.59	21.65	22.50
		12	6	21.57	21.65	21.70	22.50
		12	13	21.46	21.63	21.58	22.50
		25	0	21.49	21.65	21.61	22.50

	64QAM	1	0	21.63	21.74	21.84	22.50
		1	13	21.67	21.75	21.77	22.50
		1	24	21.67	21.73	21.73	22.50
		12	0	21.14	21.20	21.28	22.00
		12	6	21.11	21.24	21.30	22.00
		12	13	21.03	21.23	21.15	22.00
		25	0	21.06	21.23	21.22	22.00
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				18650/1855	18900/1880	19150/1905	
10MHz	QPSK	1	0	21.48	21.65	21.61	22.50
		1	25	21.48	21.68	21.70	22.50
		1	49	21.45	21.62	21.72	22.50
		25	0	21.57	21.76	21.73	22.50
		25	13	21.58	21.74	21.74	22.50
		25	25	21.49	21.69	21.63	22.50
		50	0	21.54	21.73	21.71	22.50
	16QAM	1	0	21.75	21.92	21.87	22.50
		1	25	21.80	21.90	21.94	22.50
		1	49	21.74	21.89	21.87	22.50
		25	0	21.59	21.64	21.69	22.50
		25	13	21.59	21.69	21.73	22.50
		25	25	21.49	21.68	21.62	22.50
		50	0	21.52	21.70	21.65	22.50
	64QAM	1	0	21.65	21.73	21.86	22.50
		1	25	21.70	21.75	21.80	22.50
		1	49	21.66	21.75	21.76	22.50
		25	0	21.17	21.25	21.28	22.00
		25	13	21.13	21.28	21.33	22.00
		25	25	21.06	21.28	21.19	22.00
		50	0	21.09	21.28	21.26	22.00
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				18675/1857.5	18900/1880	19125/1902.5	
15MHz	QPSK	1	0	21.47	21.61	21.59	22.50
		1	38	21.46	21.67	21.67	22.50
		1	74	21.42	21.57	21.68	22.50
		36	0	21.55	21.72	21.70	22.50
		36	18	21.55	21.69	21.70	22.50
		36	39	21.46	21.66	21.59	22.50
		75	0	21.52	21.69	21.66	22.50
	16QAM	1	0	21.73	21.90	21.85	22.50
		1	38	21.78	21.87	21.92	22.50
		1	74	21.72	21.85	21.84	22.50

		36	0	21.56	21.62	21.66	22.50
		36	18	21.56	21.64	21.69	22.50
		36	39	21.47	21.64	21.59	22.50
		75	0	21.49	21.65	21.61	22.50
	64QAM	1	0	21.60	21.71	21.84	22.50
		1	38	21.68	21.72	21.78	22.50
		1	74	21.67	21.74	21.77	22.50
		36	0	21.16	21.27	21.29	22.00
		36	18	21.11	21.25	21.32	22.00
		36	39	21.04	21.24	21.16	22.00
		75	0	21.06	21.23	21.22	22.00
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				18700/1860	18900/1880	19100/1900	
20MHz	QPSK	1	0	21.44	21.57	21.56	22.50
		1	50	**21.45**	**21.63**	**21.65**	22.50
		1	99	21.40	21.56	**21.65**	22.50
		50	0	21.52	**21.67**	21.66	22.50
		50	25	**21.53**	21.65	**21.67**	22.50
		50	50	21.43	21.61	21.55	22.50
		100	0	21.49	**21.64**	21.62	22.50
	16QAM	1	0	21.70	21.86	21.80	22.50
		1	50	21.75	21.85	21.88	22.50
		1	99	21.69	21.82	21.82	22.50
		50	0	21.53	21.58	21.63	22.50
		50	25	21.53	21.62	21.66	22.50
		50	50	21.44	21.59	21.55	22.50
		100	0	21.47	21.61	21.58	22.50
	64QAM	1	0	21.58	21.67	21.79	22.50
		1	50	21.64	21.70	21.74	22.50
		1	99	21.61	21.68	21.71	22.50
		50	0	21.11	21.19	21.22	22.00
		50	25	21.07	21.21	21.26	22.00
		50	50	21.01	21.19	21.12	22.00
		100	0	21.04	21.19	21.19	22.00

LTE Band 4							
Receiver off-Main Ant2				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				19957/1710.7	20175/1732.5	20393/1754.3	
1.4MHz	QPSK	1	0	22.70	22.67	22.59	23.50
		1	2	22.66	22.58	22.45	23.50

		1	5	22.47	22.41	22.46	23.50
		3	0	22.86	22.84	22.67	23.50
		3	2	22.77	22.77	22.68	23.50
		3	3	22.69	22.63	22.61	23.50
		6	0	22.59	22.70	22.58	23.50
	16QAM	1	0	22.94	22.91	23.03	23.50
		1	2	22.92	22.87	22.86	23.50
		1	5	22.75	22.73	22.76	23.50
		3	0	22.68	22.57	22.44	23.50
		3	2	22.64	22.57	22.50	23.50
		3	3	22.49	22.46	22.37	23.50
		6	0	21.60	21.63	21.52	22.50
	64QAM	1	0	21.98	21.91	21.89	22.50
		1	2	21.89	21.78	21.72	22.50
		1	5	21.80	21.77	21.59	22.50
		3	0	21.67	21.55	21.50	22.50
		3	2	21.63	21.54	21.49	22.50
		3	3	21.46	21.44	21.39	22.50
		6	0	20.61	20.62	20.51	21.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				19965/1711.5	20175/1732.5	20385/1753.5	
3MHz	QPSK	1	0	22.72	22.71	22.62	23.50
		1	7	22.64	22.61	22.49	23.50
		1	14	22.50	22.46	22.50	23.50
		8	0	22.79	22.79	22.63	23.50
		8	4	22.72	22.70	22.63	23.50
		8	7	22.62	22.57	22.54	23.50
		15	0	22.59	22.74	22.61	23.50
	16QAM	1	0	22.94	22.93	23.06	23.50
		1	7	22.92	22.87	22.90	23.50
		1	14	22.77	22.77	22.79	23.50
		8	0	21.79	21.70	21.56	22.50
		8	4	21.75	21.70	21.62	22.50
		8	7	21.59	21.58	21.50	22.50
		15	0	21.63	21.67	21.55	22.50
	64QAM	1	0	22.01	21.93	21.92	22.50
		1	7	21.92	21.78	21.74	22.50
		1	14	21.82	21.76	21.62	22.50
		8	0	20.78	20.68	20.62	21.50
		8	4	20.74	20.67	20.61	21.50
		8	7	20.56	20.56	20.52	21.50
		15	0	20.64	20.66	20.54	21.50

Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				19975/1712.5	20175/1732.5	20375/1752.5	
5MHz	QPSK	1	0	22.69	22.69	22.58	23.50
		1	13	22.62	22.57	22.46	23.50
		1	24	22.47	22.41	22.46	23.50
		12	0	22.76	22.74	22.59	23.50
		12	6	22.70	22.66	22.58	23.50
		12	13	22.60	22.55	22.50	23.50
		25	0	22.59	22.73	22.59	23.50
	16QAM	1	0	22.94	22.89	23.03	23.50
		1	13	22.92	22.85	22.87	23.50
		1	24	22.74	22.75	22.75	23.50
		12	0	21.77	21.66	21.53	22.50
		12	6	21.72	21.65	21.58	22.50
		12	13	21.56	21.53	21.46	22.50
		25	0	21.61	21.63	21.50	22.50
	64QAM	1	0	21.98	21.93	21.89	22.50
		1	13	21.89	21.80	21.71	22.50
		1	24	21.83	21.74	21.58	22.50
		12	0	20.76	20.64	20.63	21.50
		12	6	20.71	20.62	20.57	21.50
		12	13	20.53	20.51	20.48	21.50
		25	0	20.62	20.62	20.49	21.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				20000/1715	20175/1732.5	20350/1750	
10MHz	QPSK	1	0	22.71	22.70	22.61	23.50
		1	25	22.65	22.62	22.50	23.50
		1	49	22.49	22.45	22.49	23.50
		25	0	22.79	22.79	22.63	23.50
		25	13	22.73	22.71	22.62	23.50
		25	25	22.62	22.59	22.55	23.50
		50	0	22.63	22.75	22.63	23.50
	16QAM	1	0	22.98	22.92	23.05	23.50
		1	25	22.96	22.89	22.90	23.50
		1	49	22.77	22.77	22.78	23.50
		25	0	21.80	21.71	21.57	22.50
		25	13	21.74	21.69	21.61	22.50
		25	25	21.59	21.58	21.50	22.50
		50	0	21.64	21.68	21.54	22.50
	64QAM	1	0	22.00	21.92	21.91	22.50
		1	25	21.92	21.80	21.74	22.50

		1	49	21.82	21.76	21.61	22.50
		25	0	20.79	20.69	20.63	21.50
		25	13	20.73	20.66	20.60	21.50
		25	25	20.56	20.56	20.52	21.50
		50	0	20.65	20.67	20.53	21.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				20025/1717.5	20175/1732.5	20325/1747.5	
15MHz	QPSK	1	0	22.70	22.66	22.59	23.50
		1	38	22.63	22.61	22.47	23.50
		1	74	22.46	22.40	22.45	23.50
		36	0	22.77	22.75	22.60	23.50
		36	18	22.70	22.66	22.58	23.50
		36	39	22.59	22.56	22.51	23.50
		75	0	22.61	22.71	22.58	23.50
	16QAM	1	0	22.96	22.90	23.03	23.50
		1	38	22.94	22.86	22.88	23.50
		1	74	22.75	22.73	22.75	23.50
		36	0	21.77	21.69	21.54	22.50
		36	18	21.71	21.64	21.57	22.50
		36	39	21.57	21.54	21.47	22.50
		75	0	21.61	21.63	21.50	22.50
	64QAM	1	0	21.95	21.90	21.89	22.50
		1	38	21.90	21.77	21.72	22.50
		1	74	21.83	21.75	21.62	22.50
		36	0	20.78	20.71	20.64	21.50
		36	18	20.71	20.63	20.59	21.50
		36	39	20.54	20.52	20.49	21.50
		75	0	20.62	20.62	20.49	21.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				20050/1720	20175/1732.5	20300/1745	
20MHz	QPSK	1	0	**22.67**	**22.62**	**22.56**	23.50
		1	50	22.62	22.57	22.45	23.50
		1	99	22.44	22.39	22.42	23.50
		50	0	**22.74**	**22.70**	**22.56**	23.50
		50	25	22.68	22.62	22.55	23.50
		50	50	22.56	22.51	22.47	23.50
		100	0	22.58	**22.66**	22.54	23.50
	16QAM	1	0	22.93	22.86	22.98	23.50
		1	50	22.91	22.84	22.84	23.50
		1	99	22.72	22.70	22.73	23.50
		50	0	21.74	21.65	21.51	22.50

		50	25	21.68	21.62	21.54	22.50
		50	50	21.54	21.49	21.43	22.50
		100	0	21.59	21.59	21.47	22.50
	64QAM	1	0	21.93	21.86	21.84	22.50
		1	50	21.86	21.75	21.68	22.50
		1	99	21.77	21.69	21.56	22.50
		50	0	20.73	20.63	20.57	21.50
		50	25	20.67	20.59	20.53	21.50
		50	50	20.51	20.47	20.45	21.50
		100	0	20.60	20.58	20.46	21.50

LTE Band 4							
Hotspot on-Main Ant2				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				19957/1710.7	20175/1732.5	20393/1754.3	
1.4MHz	QPSK	1	0	21.19	21.21	21.15	22.20
		1	2	21.14	21.06	20.99	22.20
		1	5	20.97	20.92	20.96	22.20
		3	0	21.27	21.27	21.07	22.20
		3	2	21.20	21.19	21.13	22.20
		3	3	21.12	21.07	21.06	22.20
		6	0	21.11	21.16	21.05	22.20
	16QAM	1	0	21.47	21.46	21.62	22.20
		1	2	21.39	21.43	21.42	22.20
		1	5	21.27	21.25	21.33	22.20
		3	0	21.36	21.26	21.13	22.20
		3	2	21.34	21.25	21.18	22.20
		3	3	21.15	21.12	21.09	22.20
		6	0	21.10	21.10	21.01	22.20
	64QAM	1	0	21.45	21.48	21.28	22.20
		1	2	21.38	21.35	21.20	22.20
		1	5	21.29	21.26	21.12	22.20
		3	0	21.68	21.52	21.49	22.20
		3	2	21.63	21.51	21.47	22.20
		3	3	21.50	21.39	21.34	22.20
		6	0	20.59	20.61	20.52	21.70
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				19965/1711.5	20175/1732.5	20385/1753.5	
3MHz	QPSK	1	0	21.21	21.25	21.18	22.20
		1	7	21.12	21.09	21.03	22.20
		1	14	21.00	20.97	21.00	22.20

		8	0	21.25	21.27	21.08	22.20
		8	4	21.20	21.17	21.13	22.20
		8	7	21.10	21.06	21.04	22.20
		15	0	21.11	21.20	21.08	22.20
	16QAM	1	0	21.47	21.48	21.65	22.20
		1	7	21.39	21.43	21.46	22.20
		1	14	21.29	21.29	21.36	22.20
		8	0	21.27	21.19	21.05	22.20
		8	4	21.25	21.18	21.10	22.20
		8	7	21.05	21.04	21.02	22.20
		15	0	21.13	21.14	21.04	22.20
	64QAM	1	0	21.48	21.50	21.31	22.20
		1	7	21.41	21.35	21.22	22.20
		1	14	21.31	21.25	21.15	22.20
		8	0	20.79	20.65	20.61	21.70
		8	4	20.74	20.64	20.59	21.70
		8	7	20.60	20.51	20.47	21.70
		15	0	20.62	20.65	20.55	21.70
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				19975/1712.5	20175/1732.5	20375/1752.5	
5MHz	QPSK	1	0	21.18	21.23	21.14	22.20
		1	13	21.10	21.05	21.00	22.20
		1	24	20.97	20.92	20.96	22.20
		12	0	21.22	21.22	21.04	22.20
		12	6	21.18	21.13	21.08	22.20
		12	13	21.08	21.04	21.00	22.20
		25	0	21.11	21.19	21.06	22.20
	16QAM	1	0	21.47	21.44	21.62	22.20
		1	13	21.39	21.41	21.43	22.20
		1	24	21.26	21.27	21.32	22.20
		12	0	21.25	21.15	21.02	22.20
		12	6	21.22	21.13	21.06	22.20
		12	13	21.02	20.99	20.98	22.20
		25	0	21.11	21.10	20.99	22.20
	64QAM	1	0	21.45	21.50	21.28	22.20
		1	13	21.38	21.37	21.19	22.20
		1	24	21.32	21.23	21.11	22.20
		12	0	20.77	20.61	20.62	21.70
		12	6	20.71	20.59	20.55	21.70
		12	13	20.57	20.46	20.43	21.70
		25	0	20.60	20.61	20.50	21.70

Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				20000/1715	20175/1732.5	20350/1750	
10MHz	QPSK	1	0	21.20	21.24	21.17	22.20
		1	25	21.13	21.10	21.04	22.20
		1	49	20.99	20.96	20.99	22.20
		25	0	21.25	21.27	21.08	22.20
		25	13	21.21	21.18	21.12	22.20
		25	25	21.10	21.08	21.05	22.20
		50	0	21.15	21.21	21.10	22.20
	16QAM	1	0	21.51	21.47	21.64	22.20
		1	25	21.43	21.45	21.46	22.20
		1	49	21.29	21.29	21.35	22.20
		25	0	21.28	21.20	21.06	22.20
		25	13	21.24	21.17	21.09	22.20
		25	25	21.05	21.04	21.02	22.20
		50	0	21.14	21.15	21.03	22.20
	64QAM	1	0	21.47	21.49	21.30	22.20
		1	25	21.41	21.37	21.22	22.20
		1	49	21.31	21.25	21.14	22.20
		25	0	20.80	20.66	20.62	21.70
		25	13	20.73	20.63	20.58	21.70
		25	25	20.60	20.51	20.47	21.70
		50	0	20.63	20.66	20.54	21.70

Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				20025/1717.5	20175/1732.5	20325/1747.5	
15MHz	QPSK	1	0	21.19	21.20	21.15	22.20
		1	38	21.11	21.09	21.01	22.20
		1	74	20.96	20.91	20.95	22.20
		36	0	21.23	21.23	21.05	22.20
		36	18	21.18	21.13	21.08	22.20
		36	39	21.07	21.05	21.01	22.20
		75	0	21.13	21.17	21.05	22.20
	16QAM	1	0	21.49	21.45	21.62	22.20
		1	38	21.41	21.42	21.44	22.20
		1	74	21.27	21.25	21.32	22.20
		36	0	21.25	21.18	21.03	22.20
		36	18	21.21	21.12	21.05	22.20
		36	39	21.03	21.00	20.99	22.20
		75	0	21.11	21.10	20.99	22.20
	64QAM	1	0	21.42	21.47	21.28	22.20
		1	38	21.39	21.34	21.20	22.20

		1	74	21.32	21.24	21.15	22.20
		36	0	20.79	20.68	20.63	21.70
		36	18	20.71	20.60	20.57	21.70
		36	39	20.58	20.47	20.44	21.70
		75	0	20.60	20.61	20.50	21.70
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				20050/1720	20175/1732.5	20300/1745	
20MHz	QPSK	1	0	**21.16**	**21.16**	**21.12**	22.20
		1	50	21.10	21.05	20.99	22.20
		1	99	20.94	20.90	20.92	22.20
		50	0	**21.20**	**21.18**	21.01	22.20
		50	25	21.16	21.09	**21.05**	22.20
		50	50	21.04	21.00	20.97	22.20
		100	0	21.10	**21.12**	21.01	22.20
	16QAM	1	0	21.46	21.41	21.57	22.20
		1	50	21.38	21.40	21.40	22.20
		1	99	21.24	21.22	21.30	22.20
		50	0	21.22	21.14	21.00	22.20
		50	25	21.18	21.10	21.02	22.20
		50	50	21.00	20.95	20.95	22.20
		100	0	21.09	21.06	20.96	22.20
	64QAM	1	0	21.40	21.43	21.23	22.20
		1	50	21.35	21.32	21.16	22.20
		1	99	21.26	21.18	21.09	22.20
		50	0	20.74	20.60	20.56	21.70
		50	25	20.67	20.56	20.51	21.70
		50	50	20.55	20.42	20.40	21.70
		100	0	20.58	20.57	20.47	21.70

LTE Band 5							
Normal power & Receiver on & Receiver off & Hotspot on--Main Ant0				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				20407/824.7	20525/836.5	20643/848.3	
1.4MHz	QPSK	1	0	23.32	23.41	23.38	24.50
		1	2	23.45	23.44	23.33	24.50
		1	5	23.37	23.38	23.37	24.50
		3	0	23.32	23.40	23.34	24.50
		3	2	23.32	23.39	23.34	24.50
		3	3	23.35	23.32	23.23	24.50
		6	0	22.44	22.44	22.40	23.50

	16QAM	1	0	22.52	22.71	22.65	23.50
		1	2	22.62	22.65	22.61	23.50
		1	5	22.62	22.63	22.62	23.50
		3	0	22.33	22.39	22.37	23.50
		3	2	22.37	22.41	22.36	23.50
		3	3	22.39	22.36	22.21	23.50
		6	0	21.42	21.49	21.41	22.50
	64QAM	1	0	21.46	21.54	21.51	22.50
		1	2	21.53	21.61	21.52	22.50
		1	5	21.53	21.60	21.57	22.50
		3	0	21.29	21.35	21.34	22.50
		3	2	21.34	21.37	21.33	22.50
		3	3	21.37	21.35	21.18	22.50
		6	0	20.43	20.47	20.37	21.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				20415/825.5	20525/836.5	20635/847.5	
3MHz	QPSK	1	0	23.33	23.44	23.40	24.50
		1	7	23.44	23.48	23.38	24.50
		1	14	23.39	23.42	23.40	24.50
		8	0	22.42	22.52	22.47	23.50
		8	4	22.45	22.50	22.45	23.50
		8	7	22.45	22.45	22.34	23.50
		15	0	22.48	22.49	22.45	23.50
	16QAM	1	0	22.56	22.72	22.67	23.50
		1	7	22.66	22.67	22.65	23.50
		1	14	22.64	22.67	22.64	23.50
		8	0	21.45	21.53	21.50	22.50
		8	4	21.47	21.53	21.47	22.50
		8	7	21.49	21.48	21.34	22.50
		15	0	21.46	21.54	21.43	22.50
	64QAM	1	0	21.48	21.55	21.53	22.50
		1	7	21.56	21.63	21.54	22.50
		1	14	21.55	21.59	21.59	22.50
		8	0	20.41	20.49	20.47	21.50
		8	4	20.44	20.49	20.44	21.50
		8	7	20.47	20.47	20.31	21.50
		15	0	20.47	20.52	20.39	21.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				20425/826.5	20525/836.5	20625/846.5	
5MHz	QPSK	1	0	23.32	23.40	23.38	24.50
		1	13	23.42	23.47	23.35	24.50

		1	24	23.36	23.37	23.36	24.50
		12	0	22.40	22.48	22.44	23.50
		12	6	22.42	22.45	22.41	23.50
		12	13	22.42	22.42	22.30	23.50
		25	0	22.46	22.45	22.40	23.50
	16QAM	1	0	22.54	22.70	22.65	23.50
		1	13	22.64	22.64	22.63	23.50
		1	24	22.62	22.63	22.61	23.50
		12	0	21.42	21.51	21.47	22.50
		12	6	21.44	21.48	21.43	22.50
		12	13	21.47	21.44	21.31	22.50
		25	0	21.43	21.49	21.39	22.50
	64QAM	1	0	21.43	21.53	21.51	22.50
		1	13	21.54	21.60	21.52	22.50
		1	24	21.56	21.58	21.60	22.50
		12	0	20.40	20.51	20.48	21.50
		12	6	20.42	20.46	20.43	21.50
		12	13	20.45	20.43	20.28	21.50
		25	0	20.44	20.47	20.35	21.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				20450/829	20525/836.5	20600/844	
10MHz	QPSK	1	0	23.29	23.36	**23.35**	24.50
		1	25	**23.41**	**23.43**	23.33	24.50
		1	49	23.34	23.36	23.33	24.50
		25	0	22.37	**22.43**	**22.40**	23.50
		25	13	**22.40**	22.41	22.38	23.50
		25	25	22.39	22.37	22.26	23.50
		50	0	**22.43**	22.40	22.36	23.50
	16QAM	1	0	22.51	22.66	22.60	23.50
		1	25	22.61	22.62	22.59	23.50
		1	49	22.59	22.60	22.59	23.50
		25	0	21.39	21.47	21.44	22.50
		25	13	21.41	21.46	21.40	22.50
		25	25	21.44	21.39	21.27	22.50
		50	0	21.41	21.45	21.36	22.50
	64QAM	1	0	21.41	21.49	21.46	22.50
		1	25	21.50	21.58	21.48	22.50
		1	49	21.50	21.52	21.54	22.50
		25	0	20.35	20.43	20.41	21.50
		25	13	20.38	20.42	20.37	21.50
		25	25	20.42	20.38	20.24	21.50
		50	0	20.42	20.43	20.32	21.50

LTE Band 7							
Normal power--Main Ant4				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				20775/2502.5	21100/2535	21425/2567.5	
5MHz	QPSK	1	0	22.14	22.61	22.34	23.50
		1	13	22.31	22.39	22.38	23.50
		1	24	22.30	22.39	22.43	23.50
		12	0	21.29	21.41	21.46	22.50
		12	6	21.38	21.48	21.46	22.50
		12	13	21.39	21.45	21.43	22.50
		25	0	21.29	21.43	21.46	22.50
	16QAM	1	0	21.43	21.68	21.66	22.50
		1	13	21.65	21.76	21.76	22.50
		1	24	21.64	21.76	21.78	22.50
		12	0	20.59	20.67	20.74	21.50
		12	6	20.70	20.76	20.74	21.50
		12	13	20.66	20.73	20.72	21.50
		25	0	20.61	20.69	20.74	21.50
	64QAM	1	0	20.78	20.82	20.78	21.50
		1	13	20.85	20.93	20.83	21.50
		1	24	20.88	20.90	20.84	21.50
		12	0	19.59	19.62	19.74	20.50
		12	6	19.64	19.72	19.71	20.50
		12	13	19.63	19.70	19.68	20.50
		25	0	19.57	19.65	19.70	20.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				20800/2505	21100/2535	21400/2565	
10MHz	QPSK	1	0	22.15	22.58	22.35	23.50
		1	25	22.32	22.43	22.39	23.50
		1	49	22.29	22.38	22.42	23.50
		25	0	21.30	21.42	21.47	22.50
		25	13	21.38	21.48	21.46	22.50
		25	25	21.38	21.46	21.44	22.50
		50	0	21.31	21.41	21.45	22.50
	16QAM	1	0	21.45	21.69	21.66	22.50
		1	25	21.67	21.77	21.77	22.50
		1	49	21.65	21.74	21.78	22.50
		25	0	20.59	20.70	20.75	21.50
		25	13	20.69	20.75	20.73	21.50
		25	25	20.67	20.74	20.73	21.50
		50	0	20.61	20.69	20.74	21.50
	64QAM	1	0	20.75	20.79	20.78	21.50

		1	25	20.86	20.90	20.84	21.50
		1	49	20.88	20.91	20.88	21.50
		25	0	19.61	19.69	19.75	20.50
		25	13	19.64	19.73	19.73	20.50
		25	25	19.64	19.71	19.69	20.50
		50	0	19.57	19.65	19.70	20.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				20825/2507.5	21100/2535	21375/2562.5	
15MHz	QPSK	1	0	22.17	22.63	22.38	23.50
		1	38	22.33	22.43	22.41	23.50
		1	74	22.33	22.44	22.47	23.50
		36	0	21.32	21.46	21.50	22.50
		36	18	21.40	21.52	21.51	22.50
		36	39	21.41	21.47	21.47	22.50
		75	0	21.29	21.44	21.48	22.50
	16QAM	1	0	21.43	21.72	21.69	22.50
		1	38	21.65	21.78	21.79	22.50
		1	74	21.67	21.78	21.82	22.50
		36	0	20.61	20.71	20.77	21.50
		36	18	20.73	20.81	20.78	21.50
		36	39	20.69	20.78	20.76	21.50
		75	0	20.63	20.73	20.79	21.50
	64QAM	1	0	20.81	20.82	20.81	21.50
		1	38	20.88	20.91	20.86	21.50
		1	74	20.87	20.92	20.88	21.50
		36	0	19.61	19.66	19.73	20.50
		36	18	19.67	19.77	19.75	20.50
		36	39	19.66	19.75	19.72	20.50
		75	0	19.59	19.69	19.75	20.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				20850/2510	21100/2535	21350/2560	
20MHz	QPSK	1	0	22.12	**22.54**	22.32	23.50
		1	50	**22.31**	22.39	22.37	23.50
		1	99	22.27	22.37	**22.39**	23.50
		50	0	21.27	21.37	**21.43**	22.50
		50	25	**21.36**	**21.44**	**21.43**	22.50
		50	50	21.35	21.41	21.40	22.50
		100	0	21.28	21.36	**21.41**	22.50
	16QAM	1	0	21.42	21.65	21.61	22.50
		1	50	21.64	21.75	21.73	22.50
		1	99	21.62	21.71	21.76	22.50
		50	0	20.56	20.66	20.72	21.50
		50	25	20.66	20.73	20.70	21.50

		50	50	20.64	20.69	20.69	21.50
		100	0	20.59	20.65	20.71	21.50
	64QAM	1	0	20.73	20.75	20.73	21.50
		1	50	20.82	20.88	20.80	21.50
		1	99	20.82	20.85	20.82	21.50
		50	0	19.56	19.61	19.68	20.50
		50	25	19.60	19.69	19.67	20.50
		50	50	19.61	19.66	19.65	20.50
		100	0	19.55	19.61	19.67	20.50

LTE Band 7							
Receiver on-Main Ant4				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				20775/2502.5	21100/2535	21425/2567.5	
5MHz	QPSK	1	0	21.20	21.50	21.41	22.50
		1	13	21.34	21.47	21.44	22.50
		1	24	21.36	21.45	21.52	22.50
		12	0	21.35	21.53	21.55	22.50
		12	6	21.43	21.59	21.54	22.50
		12	13	21.46	21.56	21.53	22.50
		25	0	21.35	21.55	21.57	22.50
	16QAM	1	0	21.58	21.85	21.85	22.50
		1	13	21.80	21.90	21.93	22.50
		1	24	21.79	21.93	21.92	22.50
		12	0	20.48	20.57	20.63	21.50
		12	6	20.59	20.65	20.64	21.50
		12	13	20.54	20.67	20.63	21.50
		25	0	20.48	20.62	20.64	21.50
	64QAM	1	0	20.67	20.72	20.70	21.50
		1	13	20.75	20.80	20.73	21.50
		1	24	20.79	20.83	20.75	21.50
		12	0	19.55	19.61	19.72	20.50
		12	6	19.59	19.68	19.69	20.50
		12	13	19.56	19.69	19.64	20.50
		25	0	19.49	19.63	19.65	20.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				20800/2505	21100/2535	21400/2565	
10MHz	QPSK	1	0	21.22	21.51	21.44	22.50
		1	25	21.37	21.52	21.48	22.50
		1	49	21.38	21.49	21.55	22.50
		25	0	21.38	21.58	21.59	22.50
		25	13	21.46	21.64	21.58	22.50
		25	25	21.48	21.60	21.58	22.50

		50	0	21.39	21.57	21.61	22.50
	16QAM	1	0	21.62	21.88	21.87	22.50
		1	25	21.84	21.94	21.96	22.50
		1	49	21.82	21.95	21.95	22.50
		25	0	20.51	20.62	20.67	21.50
		25	13	20.61	20.69	20.67	21.50
		25	25	20.57	20.72	20.67	21.50
		50	0	20.51	20.67	20.68	21.50
	64QAM	1	0	20.69	20.71	20.72	21.50
		1	25	20.78	20.80	20.76	21.50
		1	49	20.78	20.85	20.78	21.50
		25	0	19.58	19.66	19.72	20.50
		25	13	19.61	19.72	19.72	20.50
		25	25	19.59	19.74	19.68	20.50
		50	0	19.52	19.68	19.69	20.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				20825/2507.5	21100/2535	21375/2562.5	
15MHz	QPSK	1	0	21.21	21.47	21.42	22.50
		1	38	21.35	21.51	21.45	22.50
		1	74	21.35	21.44	21.51	22.50
		36	0	21.36	21.54	21.56	22.50
		36	18	21.43	21.59	21.54	22.50
		36	39	21.45	21.57	21.54	22.50
		75	0	21.37	21.53	21.56	22.50
	16QAM	1	0	21.60	21.86	21.85	22.50
		1	38	21.82	21.91	21.94	22.50
		1	74	21.80	21.91	21.92	22.50
		36	0	20.48	20.60	20.64	21.50
		36	18	20.58	20.64	20.63	21.50
		36	39	20.55	20.68	20.64	21.50
		75	0	20.48	20.62	20.64	21.50
	64QAM	1	0	20.64	20.69	20.70	21.50
		1	38	20.76	20.77	20.74	21.50
		1	74	20.79	20.84	20.79	21.50
		36	0	19.57	19.68	19.73	20.50
		36	18	19.59	19.69	19.71	20.50
		36	39	19.57	19.70	19.65	20.50
		75	0	19.49	19.63	19.65	20.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				20850/2510	21100/2535	21350/2560	
20MHz	QPSK	1	0	21.18	21.43	21.39	22.50
		1	50	**21.34**	**21.47**	21.43	22.50
		1	99	21.33	21.43	**21.48**	22.50

		50	0	21.33	21.49	**21.52**	22.50
		50	25	21.41	**21.55**	21.51	22.50
		50	50	**21.42**	21.52	21.50	22.50
		100	0	21.34	21.48	**21.52**	22.50
	16QAM	1	0	21.57	21.82	21.80	22.50
		1	50	21.79	21.89	21.90	22.50
		1	99	21.77	21.88	21.90	22.50
		50	0	20.45	20.56	20.61	21.50
		50	25	20.55	20.62	20.60	21.50
		50	50	20.52	20.63	20.60	21.50
		100	0	20.46	20.58	20.61	21.50
	64QAM	1	0	20.62	20.65	20.65	21.50
		1	50	20.72	20.75	20.70	21.50
		1	99	20.73	20.78	20.73	21.50
		50	0	19.52	19.60	19.66	20.50
		50	25	19.55	19.65	19.65	20.50
		50	50	19.54	19.65	19.61	20.50
		100	0	19.47	19.59	19.62	20.50

LTE Band 7							
Receiver off-Main Ant4				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				20775/2502.5	21100/2535	21425/2567.5	
5MHz	QPSK	1	0	18.04	18.25	18.24	19.30
		1	13	18.18	18.34	18.29	19.30
		1	24	18.21	18.33	18.38	19.30
		12	0	18.17	18.36	18.39	19.30
		12	6	18.24	18.43	18.39	19.30
		12	13	18.27	18.34	18.37	19.30
		25	0	18.13	18.35	18.37	19.30
	16QAM	1	0	18.25	18.48	18.55	19.30
		1	13	18.45	18.54	18.62	19.30
		1	24	18.53	18.61	18.60	19.30
		12	0	18.19	18.28	18.33	19.30
		12	6	18.30	18.39	18.41	19.30
		12	13	18.26	18.38	18.36	19.30
		25	0	18.19	18.32	18.39	19.30
	64QAM	1	0	18.14	18.32	18.25	19.30
		1	13	18.30	18.40	18.44	19.30
		1	24	18.24	18.41	18.46	19.30
		12	0	18.33	18.40	18.45	19.30
		12	6	18.31	18.43	18.36	19.30
		12	13	18.28	18.39	18.34	19.30

		25	0	18.18	18.32	18.37	19.30
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				20800/2505	21100/2535	21400/2565	
10MHz	QPSK	1	0	18.03	18.24	18.23	19.30
		1	25	18.19	18.35	18.30	19.30
		1	49	18.20	18.32	18.37	19.30
		25	0	18.17	18.36	18.39	19.30
		25	13	18.25	18.44	18.38	19.30
		25	25	18.27	18.36	18.38	19.30
		50	0	18.17	18.36	18.39	19.30
	16QAM	1	0	18.29	18.47	18.54	19.30
		1	25	18.49	18.56	18.62	19.30
		1	49	18.53	18.61	18.59	19.30
		25	0	18.20	18.29	18.34	19.30
		25	13	18.29	18.38	18.40	19.30
		25	25	18.26	18.38	18.36	19.30
		50	0	18.20	18.33	18.38	19.30
	64QAM	1	0	18.13	18.31	18.24	19.30
		1	25	18.30	18.42	18.44	19.30
		1	49	18.24	18.41	18.45	19.30
		25	0	18.34	18.41	18.46	19.30
		25	13	18.30	18.42	18.35	19.30
		25	25	18.28	18.39	18.34	19.30
		50	0	18.19	18.33	18.36	19.30
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				20825/2507.5	21100/2535	21375/2562.5	
15MHz	QPSK	1	0	18.02	18.20	18.21	19.30
		1	38	18.17	18.34	18.27	19.30
		1	74	18.17	18.27	18.33	19.30
		36	0	18.15	18.32	18.36	19.30
		36	18	18.22	18.39	18.34	19.30
		36	39	18.24	18.33	18.34	19.30
		75	0	18.15	18.32	18.34	19.30
	16QAM	1	0	18.27	18.45	18.52	19.30
		1	38	18.47	18.53	18.60	19.30
		1	74	18.51	18.57	18.56	19.30
		36	0	18.17	18.27	18.31	19.30
		36	18	18.26	18.33	18.36	19.30
		36	39	18.24	18.34	18.33	19.30
		75	0	18.17	18.28	18.34	19.30
	64QAM	1	0	18.08	18.29	18.22	19.30
		1	38	18.28	18.39	18.42	19.30
		1	74	18.25	18.40	18.46	19.30

		36	0	18.33	18.43	18.47	19.30
		36	18	18.28	18.39	18.34	19.30
		36	39	18.26	18.35	18.31	19.30
		75	0	18.16	18.28	18.32	19.30
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				20850/2510	21100/2535	21350/2560	
20MHz	QPSK	1	0	17.99	18.16	18.18	19.30
		1	50	**18.16**	**18.30**	18.25	19.30
		1	99	18.15	18.26	**18.30**	19.30
		50	0	18.12	18.27	**18.32**	19.30
		50	25	18.20	**18.35**	18.31	19.30
		50	50	**18.21**	18.28	18.30	19.30
		100	0	18.12	18.27	**18.30**	19.30
	16QAM	1	0	18.24	18.41	18.47	19.30
		1	50	18.44	18.51	18.56	19.30
		1	99	18.48	18.54	18.54	19.30
		50	0	18.14	18.23	18.28	19.30
		50	25	18.23	18.31	18.33	19.30
		50	50	18.21	18.29	18.29	19.30
		100	0	18.15	18.24	18.31	19.30
	64QAM	1	0	18.06	18.25	18.17	19.30
		1	50	18.24	18.37	18.38	19.30
		1	99	18.19	18.34	18.40	19.30
		50	0	18.28	18.35	18.40	19.30
		50	25	18.24	18.35	18.28	19.30
		50	50	18.23	18.30	18.27	19.30
		100	0	18.14	18.24	18.29	19.30

LTE Band 7							
Hotspot on-Main Ant4				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				20775/2502.5	21100/2535	21425/2567.5	
5MHz	QPSK	1	0	17.13	17.16	17.03	18.50
		1	13	17.10	17.14	17.13	18.50
		1	24	17.16	17.11	17.19	18.50
		12	0	17.12	17.24	17.10	18.50
		12	6	17.19	17.31	17.20	18.50
		12	13	17.19	17.29	17.18	18.50
		25	0	17.14	17.29	17.23	18.50
	16QAM	1	0	17.53	17.31	17.45	18.50
		1	13	17.46	17.64	17.46	18.50
		1	24	17.29	17.54	17.22	18.50
		12	0	17.13	17.16	17.21	18.50

		12	6	17.27	17.27	17.23	18.50
		12	13	17.21	17.22	17.16	18.50
		25	0	17.15	17.18	17.23	18.50
	64QAM	1	0	17.43	17.29	17.39	18.50
		1	13	17.43	17.54	17.45	18.50
		1	24	17.60	17.40	17.63	18.50
		12	0	17.18	17.26	17.33	18.50
		12	6	17.28	17.27	17.20	18.50
		12	13	17.21	17.24	17.21	18.50
		25	0	17.14	17.19	17.14	18.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				20800/2505	21100/2535	21400/2565	
10MHz	QPSK	1	0	17.11	17.09	17.01	18.50
		1	25	17.10	17.14	17.12	18.50
		1	49	17.13	17.09	17.15	18.50
		25	0	17.10	17.20	17.07	18.50
		25	13	17.17	17.27	17.17	18.50
		25	25	17.15	17.25	17.15	18.50
		50	0	17.13	17.22	17.18	18.50
	16QAM	1	0	17.52	17.28	17.40	18.50
		1	25	17.45	17.63	17.43	18.50
		1	49	17.27	17.49	17.20	18.50
		25	0	17.10	17.15	17.19	18.50
		25	13	17.23	17.24	17.19	18.50
		25	25	17.19	17.18	17.13	18.50
		50	0	17.13	17.14	17.20	18.50
	64QAM	1	0	17.38	17.22	17.34	18.50
		1	25	17.40	17.49	17.42	18.50
		1	49	17.54	17.35	17.61	18.50
		25	0	17.15	17.25	17.27	18.50
		25	13	17.24	17.24	17.16	18.50
		25	25	17.19	17.20	17.18	18.50
		50	0	17.12	17.15	17.11	18.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				20825/2507.5	21100/2535	21375/2562.5	
15MHz	QPSK	1	0	17.09	17.02	16.99	18.50
		1	38	17.10	17.14	17.11	18.50
		1	74	17.10	17.07	17.11	18.50
		36	0	17.08	17.16	17.04	18.50
		36	18	17.15	17.23	17.14	18.50
		36	39	17.11	17.21	17.12	18.50
		75	0	17.12	17.15	17.13	18.50
	16QAM	1	0	17.51	17.25	17.35	18.50

		1	38	17.44	17.62	17.40	18.50
		1	74	17.25	17.44	17.18	18.50
		36	0	17.07	17.14	17.17	18.50
		36	18	17.19	17.21	17.15	18.50
		36	39	17.17	17.14	17.10	18.50
		75	0	17.11	17.10	17.17	18.50
	64QAM	1	0	17.33	17.15	17.29	18.50
		1	38	17.37	17.44	17.39	18.50
		1	74	17.48	17.30	17.59	18.50
		36	0	17.12	17.24	17.21	18.50
		36	18	17.20	17.21	17.12	18.50
		36	39	17.17	17.16	17.15	18.50
		75	0	17.10	17.11	17.08	18.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				20850/2510	21100/2535	21350/2560	
20MHz	QPSK	1	0	17.06	16.98	16.96	18.50
		1	50	**17.09**	**17.10**	**17.09**	18.50
		1	99	17.08	17.06	17.08	18.50
		50	0	17.05	17.11	17.00	18.50
		50	25	**17.13**	**17.19**	**17.11**	18.50
		50	50	17.08	17.16	17.08	18.50
		100	0	17.09	**17.10**	17.09	18.50
	16QAM	1	0	17.48	17.21	17.30	18.50
		1	50	17.41	17.60	17.36	18.50
		1	99	17.22	17.41	17.16	18.50
		50	0	17.04	17.10	17.14	18.50
		50	25	17.16	17.19	17.12	18.50
		50	50	17.14	17.09	17.06	18.50
		100	0	17.09	17.06	17.14	18.50
	64QAM	1	0	17.31	17.11	17.24	18.50
		1	50	17.33	17.42	17.35	18.50
		1	99	17.42	17.24	17.53	18.50
		50	0	17.07	17.16	17.14	18.50
		50	25	17.16	17.17	17.06	18.50
		50	50	17.14	17.11	17.11	18.50
		100	0	17.08	17.07	17.05	18.50

LTE Band 12							
Normal power & Receiver on & Receiver off & Hotspot on--Main Ant0				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				23017/699.7	23095/707.5	23173/715.3	
1.4MHz	QPSK	1	0	23.67	23.74	23.76	24.50
		1	2	23.77	23.68	23.73	24.50
		1	5	23.82	23.70	23.84	24.50
		3	0	23.63	23.58	23.61	24.50
		3	2	23.61	23.68	23.67	24.50
		3	3	23.70	23.73	23.65	24.50
		6	0	22.76	22.78	22.73	23.50
	16QAM	1	0	22.98	22.94	22.96	23.50
		1	2	22.92	22.91	23.01	23.50
		1	5	22.99	22.98	23.03	23.50
		3	0	22.63	22.60	22.63	23.50
		3	2	22.68	22.70	22.71	23.50
		3	3	22.73	22.78	22.64	23.50
		6	0	21.76	21.77	21.76	22.50
	64QAM	1	0	21.98	21.98	21.93	22.50
		1	2	21.87	21.92	21.93	22.50
		1	5	21.92	21.99	22.00	22.50
		3	0	21.75	21.69	21.74	22.50
		3	2	21.80	21.80	21.81	22.50
		3	3	21.84	21.90	21.70	22.50
		6	0	20.88	20.88	20.86	21.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				23025/700.5	23095/707.5	23165/714.5	
3MHz	QPSK	1	0	23.69	23.78	23.79	24.50
		1	7	23.75	23.71	23.77	24.50
		1	14	23.85	23.75	23.88	24.50
		8	0	22.73	22.70	22.74	23.50
		8	4	22.73	22.78	22.79	23.50
		8	7	22.80	22.84	22.75	23.50
		15	0	22.76	22.82	22.76	23.50
	16QAM	1	0	22.98	22.96	22.99	23.50
		1	7	22.92	22.91	23.05	23.50
		1	14	23.01	23.02	23.06	23.50
		8	0	21.74	21.73	21.75	22.50
		8	4	21.79	21.83	21.83	22.50

		8	7	21.83	21.90	21.77	22.50
		15	0	21.79	21.81	21.79	22.50
	64QAM	1	0	22.01	22.00	21.96	22.50
		1	7	21.90	21.92	21.95	22.50
		1	14	21.94	21.98	22.03	22.50
		8	0	20.86	20.82	20.86	21.50
		8	4	20.91	20.93	20.93	21.50
		8	7	20.94	21.02	20.83	21.50
		15	0	20.91	20.92	20.89	21.50

Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				23035/701.5	23095/707.5	23155/713.5	
5MHz	QPSK	1	0	23.67	23.73	23.76	24.50
		1	13	23.74	23.71	23.75	24.50
		1	24	23.81	23.69	23.83	24.50
		12	0	22.71	22.66	22.71	23.50
		12	6	22.71	22.74	22.74	23.50
		12	13	22.77	22.83	22.72	23.50
		25	0	22.78	22.79	22.73	23.50
	16QAM	1	0	23.00	22.93	22.96	23.50
		1	13	22.94	22.90	23.03	23.50
		1	24	22.99	22.98	23.02	23.50
		12	0	21.72	21.72	21.73	22.50
		12	6	21.75	21.77	21.78	22.50
		12	13	21.81	21.86	21.74	22.50
		25	0	21.77	21.77	21.74	22.50
	64QAM	1	0	21.95	21.97	21.93	22.50
		1	13	21.88	21.91	21.93	22.50
		1	24	21.95	21.97	22.03	22.50
		12	0	20.86	20.85	20.88	21.50
		12	6	20.88	20.89	20.91	21.50
		12	13	20.92	20.98	20.80	21.50
		25	0	20.89	20.88	20.84	21.50

Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				23060/704	23095/707.5	23130/711	
10MHz	QPSK	1	0	23.64	**23.69**	23.73	24.50
		1	25	23.73	23.67	23.73	24.50
		1	49	**23.79**	23.68	**23.80**	24.50
		25	0	22.68	22.61	22.67	23.50
		25	13	22.69	22.70	**22.71**	23.50
		25	25	**22.74**	**22.78**	22.68	23.50
		50	0	**22.75**	22.74	22.69	23.50

	16QAM	1	0	22.97	22.89	22.91	23.50
		1	25	22.91	22.88	22.99	23.50
		1	49	22.96	22.95	23.00	23.50
		25	0	21.69	21.68	21.70	22.50
		25	13	21.72	21.75	21.75	22.50
		25	25	21.78	21.81	21.70	22.50
		50	0	21.75	21.73	21.71	22.50
	64QAM	1	0	21.93	21.93	21.88	22.50
		1	25	21.84	21.89	21.89	22.50
		1	49	21.89	21.91	21.97	22.50
		25	0	20.81	20.77	20.81	21.50
		25	13	20.84	20.85	20.85	21.50
		25	25	20.89	20.93	20.76	21.50
		50	0	20.87	20.84	20.81	21.50

LTE Band 13							
Normal power & Receiver on & Receiver off & Hotspot on--Main Ant0				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				23205/779.5	23230/782	23255/784.5	
5MHz	QPSK	1	0	22.71	22.80	22.69	24.00
		1	13	22.88	22.92	22.88	24.00
		1	24	22.90	22.97	22.87	24.00
		12	0	21.92	22.01	21.90	23.00
		12	6	21.90	21.98	21.88	23.00
		12	13	21.99	22.05	21.95	23.00
		25	0	21.97	22.05	21.96	23.00
	16QAM	1	0	21.89	21.96	21.88	23.00
		1	13	22.01	22.04	22.00	23.00
		1	24	21.94	22.01	21.92	23.00
		12	0	20.88	20.93	20.85	22.00
		12	6	20.92	21.00	20.88	22.00
		12	13	20.96	21.05	20.94	22.00
		25	0	20.93	21.01	20.91	22.00
	64QAM	1	0	20.63	20.70	20.58	22.00
		1	13	20.63	20.66	20.60	22.00
		1	24	20.68	20.75	20.62	22.00
		12	0	20.04	20.09	20.01	21.00
		12	6	20.06	20.14	20.02	21.00
		12	13	20.11	20.20	20.09	21.00
		25	0	20.08	20.16	20.06	21.00

Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				/	23230/782	/	
10MHz	QPSK	1	0	/	22.64	/	24.00
		1	25	/	**22.83**	/	24.00
		1	49	/	22.80	/	24.00
		25	0	/	21.83	/	23.00
		25	13	/	21.81	/	23.00
		25	25	/	**21.87**	/	23.00
		50	0	/	**21.87**	/	23.00
	16QAM	1	0	/	21.81	/	23.00
		1	25	/	21.94	/	23.00
		1	49	/	21.87	/	23.00
		25	0	/	20.79	/	22.00
		25	13	/	20.81	/	22.00
		25	25	/	20.87	/	22.00
		50	0	/	20.84	/	22.00
	64QAM	1	0	/	20.51	/	22.00
		1	25	/	20.54	/	22.00
		1	49	/	20.57	/	22.00
		25	0	/	19.95	/	21.00
		25	13	/	19.95	/	21.00
		25	25	/	20.02	/	21.00
		50	0	/	19.99	/	21.00

LTE Band 25							
Normal power-Main Ant2				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				26047/1850.7	26365/1882,5	26683/1914.3	
1.4MHz	QPSK	1	0	23.83	24.02	24.01	24.50
		1	2	23.97	24.06	24.08	24.50
		1	5	23.87	24.01	24.12	24.50
		3	0	23.80	23.95	24.02	24.50
		3	2	23.76	23.98	23.99	24.50
		3	3	23.77	23.86	23.96	24.50
		6	0	22.80	23.00	23.09	23.50
	16QAM	1	0	22.94	23.25	23.24	23.50
		1	2	23.07	23.26	23.29	23.50
		1	5	22.96	23.26	23.27	23.50
		3	0	22.97	23.12	23.20	23.50
		3	2	22.97	23.10	23.19	23.50
		3	3	22.96	23.08	23.11	23.50
		6	0	22.00	22.20	22.27	22.50

	64QAM	1	0	22.02	22.27	22.15	22.50
		1	2	22.26	22.34	22.30	22.50
		1	5	22.16	22.35	22.19	22.50
		3	0	21.95	22.09	22.19	22.50
		3	2	21.96	22.10	22.18	22.50
		3	3	21.92	22.07	22.09	22.50
		6	0	21.00	21.17	21.22	21.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				26055/1851.5	26365/1882,5	26675/1913.5	
3MHz	QPSK	1	0	23.85	24.06	24.04	24.50
		1	7	23.95	24.09	24.12	24.50
		1	14	23.90	24.06	24.16	24.50
		8	0	22.90	23.07	23.15	23.50
		8	4	22.88	23.08	23.11	23.50
		8	7	22.87	22.97	23.06	23.50
		15	0	22.80	23.04	23.12	23.50
	16QAM	1	0	22.94	23.27	23.27	23.50
		1	7	23.07	23.26	23.33	23.50
		1	14	22.98	23.30	23.30	23.50
		8	0	22.08	22.25	22.32	22.50
		8	4	22.08	22.23	22.31	22.50
		8	7	22.06	22.20	22.24	22.50
		15	0	22.03	22.24	22.30	22.50
	64QAM	1	0	22.05	22.29	22.18	22.50
		1	7	22.29	22.34	22.32	22.50
		1	14	22.18	22.34	22.22	22.50
		8	0	21.06	21.22	21.31	21.50
		8	4	21.07	21.23	21.30	21.50
		8	7	21.02	21.19	21.22	21.50
		15	0	21.03	21.21	21.25	21.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				26065/1852.5	26365/1882,5	26665/1912.5	
5MHz	QPSK	1	0	23.82	24.04	24.00	24.50
		1	13	23.93	24.05	24.09	24.50
		1	24	23.87	24.01	24.12	24.50
		12	0	22.87	23.02	23.11	23.50
		12	6	22.86	23.04	23.06	23.50
		12	13	22.85	22.95	23.02	23.50
		25	0	22.80	23.03	23.10	23.50
	16QAM	1	0	22.94	23.23	23.24	23.50
		1	13	23.07	23.24	23.30	23.50

		1	24	22.95	23.28	23.26	23.50
		12	0	22.06	22.21	22.29	22.50
		12	6	22.05	22.18	22.27	22.50
		12	13	22.03	22.15	22.20	22.50
		25	0	22.01	22.20	22.25	22.50
	64QAM	1	0	22.02	22.29	22.15	22.50
		1	13	22.26	22.36	22.29	22.50
		1	24	22.19	22.32	22.18	22.50
		12	0	21.04	21.18	21.32	21.50
		12	6	21.04	21.18	21.26	21.50
		12	13	20.99	21.14	21.18	21.50
		25	0	21.01	21.17	21.20	21.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				26090/1855	26365/1882,5	26640/1910	
10MHz	QPSK	1	0	23.84	24.05	24.03	24.50
		1	25	23.96	24.10	24.13	24.50
		1	49	23.89	24.05	24.15	24.50
		25	0	22.90	23.07	23.15	23.50
		25	13	22.89	23.09	23.10	23.50
		25	25	22.87	22.99	23.07	23.50
		50	0	22.84	23.05	23.14	23.50
	16QAM	1	0	22.98	23.26	23.26	23.50
		1	25	23.11	23.28	23.33	23.50
		1	49	22.98	23.30	23.29	23.50
		25	0	22.09	22.26	22.33	22.50
		25	13	22.07	22.22	22.30	22.50
		25	25	22.06	22.20	22.24	22.50
		50	0	22.04	22.25	22.29	22.50
	64QAM	1	0	22.04	22.28	22.17	22.50
		1	25	22.29	22.36	22.32	22.50
		1	49	22.18	22.34	22.21	22.50
		25	0	21.07	21.23	21.32	21.50
		25	13	21.06	21.22	21.29	21.50
		25	25	21.02	21.19	21.22	21.50
		50	0	21.04	21.22	21.24	21.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				26115/1857.5	26365/1882,5	26615/1907.5	
15MHz	QPSK	1	0	23.83	24.01	24.01	24.50
		1	38	23.94	24.09	24.10	24.50
		1	74	23.86	24.00	24.11	24.50
		36	0	22.88	23.03	23.12	23.50

		36	18	22.86	23.04	23.06	23.50
		36	39	22.84	22.96	23.03	23.50
		75	0	22.82	23.01	23.09	23.50
	16QAM	1	0	22.96	23.24	23.24	23.50
		1	38	23.09	23.25	23.31	23.50
		1	74	22.96	23.26	23.26	23.50
		36	0	22.06	22.24	22.30	22.50
		36	18	22.04	22.17	22.26	22.50
		36	39	22.04	22.16	22.21	22.50
		75	0	22.01	22.20	22.25	22.50
	64QAM	1	0	21.99	22.26	22.15	22.50
		1	38	22.27	22.33	22.30	22.50
		1	74	22.19	22.33	22.22	22.50
		36	0	21.06	21.25	21.33	21.50
		36	18	21.04	21.19	21.28	21.50
		36	39	21.00	21.15	21.19	21.50
		75	0	21.01	21.17	21.20	21.50

Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				26140/1860	26365/1882,5	26590/1905	
20MHz	QPSK	1	0	23.80	23.97	23.98	24.50
		1	50	**23.93**	**24.05**	**24.08**	24.50
		1	99	23.84	23.99	**24.08**	24.50
		50	0	**22.85**	22.98	**23.08**	23.50
		50	25	22.84	**23.00**	23.03	23.50
		50	50	22.81	22.91	22.99	23.50
		100	0	22.79	22.96	**23.05**	23.50
	16QAM	1	0	22.93	23.20	23.19	23.50
		1	50	23.06	23.23	23.27	23.50
		1	99	22.93	23.23	23.24	23.50
		50	0	22.03	22.20	22.27	22.50
		50	25	22.01	22.15	22.23	22.50
		50	50	22.01	22.11	22.17	22.50
		100	0	21.99	22.16	22.22	22.50
	64QAM	1	0	21.97	22.22	22.10	22.50
		1	50	22.23	22.31	22.26	22.50
		1	99	22.13	22.27	22.16	22.50
		50	0	21.01	21.17	21.26	21.50
		50	25	21.00	21.15	21.22	21.50
		50	50	20.97	21.10	21.15	21.50
		100	0	20.99	21.13	21.17	21.50

LTE Band 25							
Receiver on-Main Ant2				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				26047/1850.7	26365/1882,5	26683/1914.3	
1.4MHz	QPSK	1	0	20.97	21.24	21.21	22.00
		1	2	21.06	21.27	21.23	22.00
		1	5	21.07	21.19	21.33	22.00
		3	0	21.19	21.45	21.45	22.00
		3	2	21.14	21.40	21.40	22.00
		3	3	21.16	21.33	21.35	22.00
		6	0	21.07	21.44	21.48	22.00
	16QAM	1	0	21.27	21.50	21.59	22.00
		1	2	21.37	21.50	21.65	22.00
		1	5	21.30	21.55	21.58	22.00
		3	0	21.18	21.36	21.42	22.00
		3	2	21.19	21.36	21.42	22.00
		3	3	21.13	21.36	21.34	22.00
		6	0	21.09	21.37	21.39	22.00
	64QAM	1	0	21.31	21.36	21.48	22.00
		1	2	21.41	21.42	21.50	22.00
		1	5	21.32	21.52	21.45	22.00
		3	0	21.11	21.29	21.41	22.00
		3	2	21.12	21.27	21.36	22.00
		3	3	21.02	21.27	21.26	22.00
		6	0	21.00	21.30	21.33	22.00
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				26055/1851.5	26365/1882,5	26675/1913.5	
3MHz	QPSK	1	0	20.93	21.16	21.16	22.00
		1	7	21.03	21.22	21.18	22.00
		1	14	21.02	21.13	21.26	22.00
		8	0	21.14	21.36	21.38	22.00
		8	4	21.09	21.31	21.33	22.00
		8	7	21.10	21.25	21.27	22.00
		15	0	21.02	21.35	21.39	22.00
	16QAM	1	0	21.22	21.44	21.52	22.00
		1	7	21.32	21.45	21.59	22.00
		1	14	21.25	21.48	21.53	22.00
		8	0	21.12	21.30	21.36	22.00
		8	4	21.13	21.29	21.35	22.00
		8	7	21.08	21.27	21.27	22.00

		15	0	21.04	21.28	21.32	22.00
	64QAM	1	0	21.24	21.30	21.41	22.00
		1	7	21.35	21.37	21.44	22.00
		1	14	21.27	21.45	21.40	22.00
		8	0	21.05	21.23	21.35	22.00
		8	4	21.06	21.20	21.29	22.00
		8	7	20.97	21.18	21.19	22.00
		15	0	20.95	21.21	21.26	22.00
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				26065/1852.5	26365/1882,5	26665/1912.5	
5MHz	QPSK	1	0	20.90	21.14	21.12	22.00
		1	13	21.01	21.18	21.15	22.00
		1	24	20.99	21.08	21.22	22.00
		12	0	21.11	21.31	21.34	22.00
		12	6	21.07	21.27	21.28	22.00
		12	13	21.08	21.23	21.23	22.00
		25	0	21.02	21.34	21.37	22.00
	16QAM	1	0	21.22	21.40	21.49	22.00
		1	13	21.32	21.43	21.56	22.00
		1	24	21.22	21.46	21.49	22.00
		12	0	21.10	21.26	21.33	22.00
		12	6	21.10	21.24	21.31	22.00
		12	13	21.05	21.22	21.23	22.00
		25	0	21.02	21.24	21.27	22.00
	64QAM	1	0	21.21	21.30	21.38	22.00
		1	13	21.32	21.39	21.41	22.00
		1	24	21.28	21.43	21.36	22.00
		12	0	21.03	21.19	21.36	22.00
		12	6	21.03	21.15	21.25	22.00
		12	13	20.94	21.13	21.15	22.00
		25	0	20.93	21.17	21.21	22.00
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				26090/1855	26365/1882,5	26640/1910	
10MHz	QPSK	1	0	20.92	21.15	21.15	22.00
		1	25	21.04	21.23	21.19	22.00
		1	49	21.01	21.12	21.25	22.00
		25	0	21.14	21.36	21.38	22.00
		25	13	21.10	21.32	21.32	22.00
		25	25	21.10	21.27	21.28	22.00
		50	0	21.06	21.36	21.41	22.00
	16QAM	1	0	21.26	21.43	21.51	22.00

		1	25	21.36	21.47	21.59	22.00
		1	49	21.25	21.48	21.52	22.00
		25	0	21.13	21.31	21.37	22.00
		25	13	21.12	21.28	21.34	22.00
		25	25	21.08	21.27	21.27	22.00
		50	0	21.05	21.29	21.31	22.00
	64QAM	1	0	21.23	21.29	21.40	22.00
		1	25	21.35	21.39	21.44	22.00
		1	49	21.27	21.45	21.39	22.00
		25	0	21.06	21.24	21.36	22.00
		25	13	21.05	21.19	21.28	22.00
		25	25	20.97	21.18	21.19	22.00
		50	0	20.96	21.22	21.25	22.00
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				26115/1857.5	26365/1882,5	26615/1907.5	
15MHz	QPSK	1	0	20.91	21.11	21.13	22.00
		1	38	21.02	21.22	21.16	22.00
		1	74	20.98	21.07	21.21	22.00
		36	0	21.12	21.32	21.35	22.00
		36	18	21.07	21.27	21.28	22.00
		36	39	21.07	21.24	21.24	22.00
		75	0	21.04	21.32	21.36	22.00
	16QAM	1	0	21.24	21.41	21.49	22.00
		1	38	21.34	21.44	21.57	22.00
		1	74	21.23	21.44	21.49	22.00
		36	0	21.10	21.29	21.34	22.00
		36	18	21.09	21.23	21.30	22.00
		36	39	21.06	21.23	21.24	22.00
		75	0	21.02	21.24	21.27	22.00
	64QAM	1	0	21.18	21.27	21.38	22.00
		1	38	21.33	21.36	21.42	22.00
		1	74	21.28	21.44	21.40	22.00
		36	0	21.05	21.26	21.37	22.00
		36	18	21.03	21.16	21.27	22.00
		36	39	20.95	21.14	21.16	22.00
		75	0	20.93	21.17	21.21	22.00
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				26140/1860	26365/1882,5	26590/1905	
20MHz	QPSK	1	0	20.88	21.07	21.10	22.00
		1	50	**21.01**	**21.18**	21.14	22.00
		1	99	20.96	21.06	**21.18**	22.00

		50	0	**21.09**	**21.27**	**21.31**	22.00
		50	25	21.05	21.23	21.25	22.00
		50	50	21.04	21.19	21.20	22.00
		100	0	21.01	21.27	**21.32**	22.00
	16QAM	1	0	21.21	21.37	21.44	22.00
		1	50	21.31	21.42	21.53	22.00
		1	99	21.20	21.41	21.47	22.00
		50	0	21.07	21.25	21.31	22.00
		50	25	21.06	21.21	21.27	22.00
		50	50	21.03	21.18	21.20	22.00
		100	0	21.00	21.20	21.24	22.00
	64QAM	1	0	21.16	21.23	21.33	22.00
		1	50	21.29	21.34	21.38	22.00
		1	99	21.22	21.38	21.34	22.00
		50	0	21.00	21.18	21.30	22.00
		50	25	20.99	21.12	21.21	22.00
		50	50	20.92	21.09	21.12	22.00
		100	0	20.91	21.13	21.18	22.00

LTE Band 25							
Receiver off-Main Ant2				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				26047/1850.7	26365 /1882.5	26683/1914.3	
1.4MHz	QPSK	1	0	22.83	22.97	23.00	23.50
		1	2	22.90	23.04	23.09	23.50
		1	5	22.78	22.93	23.08	23.50
		3	0	22.99	23.20	23.21	23.50
		3	2	22.97	23.18	23.21	23.50
		3	3	22.98	23.10	23.13	23.50
		6	0	22.94	23.14	23.15	23.50
	16QAM	1	0	23.02	23.21	23.27	23.50
		1	2	23.14	23.22	23.31	23.50
		1	5	23.07	23.22	23.25	23.50
		3	0	22.87	23.00	23.09	23.50
		3	2	22.92	23.03	23.07	23.50
		3	3	22.86	22.99	22.99	23.50
		6	0	21.89	22.10	22.15	22.50
	64QAM	1	0	22.00	22.08	22.16	22.50
		1	2	22.09	22.15	22.21	22.50
		1	5	22.04	22.21	22.20	22.50
		3	0	21.87	22.06	22.13	22.50
		3	2	21.89	22.01	22.10	22.50

		3	3	21.85	21.97	22.02	22.50
		6	0	20.87	21.10	21.15	21.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				26055/1851.5	26365 /1882.5	26675/1913.5	
3MHz	QPSK	1	0	22.85	23.01	23.03	23.50
		1	7	22.88	23.07	23.13	23.50
		1	14	22.81	22.98	23.12	23.50
		8	0	22.98	23.21	23.23	23.50
		8	4	22.98	23.17	23.22	23.50
		8	7	22.97	23.10	23.12	23.50
		15	0	22.94	23.18	23.18	23.50
	16QAM	1	0	23.02	23.23	23.30	23.50
		1	7	23.14	23.22	23.35	23.50
		1	14	23.09	23.26	23.28	23.50
		8	0	21.98	22.13	22.21	22.50
		8	4	22.03	22.16	22.19	22.50
		8	7	21.96	22.11	22.12	22.50
		15	0	21.92	22.14	22.18	22.50
	64QAM	1	0	22.03	22.10	22.19	22.50
		1	7	22.12	22.15	22.23	22.50
		1	14	22.06	22.20	22.23	22.50
		8	0	20.98	21.19	21.25	21.50
		8	4	21.00	21.14	21.22	21.50
		8	7	20.95	21.09	21.15	21.50
		15	0	20.90	21.14	21.18	21.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				26065/1852.5	26365 /1882.5	26665/1912.5	
5MHz	QPSK	1	0	22.82	22.99	22.99	23.50
		1	13	22.86	23.03	23.10	23.50
		1	24	22.78	22.93	23.08	23.50
		12	0	22.95	23.16	23.19	23.50
		12	6	22.96	23.13	23.17	23.50
		12	13	22.95	23.08	23.08	23.50
		25	0	22.94	23.17	23.16	23.50
	16QAM	1	0	23.02	23.19	23.27	23.50
		1	13	23.14	23.20	23.32	23.50
		1	24	23.06	23.24	23.24	23.50
		12	0	21.96	22.09	22.18	22.50
		12	6	22.00	22.11	22.15	22.50
		12	13	21.93	22.06	22.08	22.50
		25	0	21.90	22.10	22.13	22.50

	64QAM	1	0	22.00	22.10	22.16	22.50
		1	13	22.09	22.17	22.20	22.50
		1	24	22.07	22.18	22.19	22.50
		12	0	20.96	21.15	21.26	21.50
		12	6	20.97	21.09	21.18	21.50
		12	13	20.92	21.04	21.11	21.50
		25	0	20.88	21.10	21.13	21.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				26090/1855	26365 /1882.5	26640/1910	
10MHz	QPSK	1	0	22.84	23.00	23.02	23.50
		1	25	22.89	23.08	23.14	23.50
		1	49	22.80	22.97	23.11	23.50
		25	0	22.98	23.21	23.23	23.50
		25	13	22.99	23.18	23.21	23.50
		25	25	22.97	23.12	23.13	23.50
		50	0	22.98	23.19	23.20	23.50
	16QAM	1	0	23.06	23.22	23.29	23.50
		1	25	23.18	23.24	23.35	23.50
		1	49	23.09	23.26	23.27	23.50
		25	0	21.99	22.14	22.22	22.50
		25	13	22.02	22.15	22.18	22.50
		25	25	21.96	22.11	22.12	22.50
		50	0	21.93	22.15	22.17	22.50
	64QAM	1	0	22.02	22.09	22.18	22.50
		1	25	22.12	22.17	22.23	22.50
		1	49	22.06	22.20	22.22	22.50
		25	0	20.99	21.20	21.26	21.50
		25	13	20.99	21.13	21.21	21.50
		25	25	20.95	21.09	21.15	21.50
		50	0	20.91	21.15	21.17	21.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				26115/1857.5	26365 /1882.5	26615/1907.5	
15MHz	QPSK	1	0	22.83	22.96	23.00	23.50
		1	38	22.87	23.07	23.11	23.50
		1	74	22.77	22.92	23.07	23.50
		36	0	22.96	23.17	23.20	23.50
		36	18	22.96	23.13	23.17	23.50
		36	39	22.94	23.09	23.09	23.50
		75	0	22.96	23.15	23.15	23.50
	16QAM	1	0	23.04	23.20	23.27	23.50
		1	38	23.16	23.21	23.33	23.50

		1	74	23.07	23.22	23.24	23.50
		36	0	21.96	22.12	22.19	22.50
		36	18	21.99	22.10	22.14	22.50
		36	39	21.94	22.07	22.09	22.50
		75	0	21.90	22.10	22.13	22.50
	64QAM	1	0	21.97	22.07	22.16	22.50
		1	38	22.10	22.14	22.21	22.50
		1	74	22.07	22.19	22.23	22.50
		36	0	20.98	21.22	21.27	21.50
		36	18	20.97	21.10	21.20	21.50
		36	39	20.93	21.05	21.12	21.50
		75	0	20.88	21.10	21.13	21.50

Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				26140/1860	26365 /1882.5	26590/1905	
20MHz	QPSK	1	0	22.80	22.92	22.97	23.50
		1	50	**22.86**	**23.03**	**23.09**	23.50
		1	99	22.75	22.91	23.04	23.50
		50	0	22.93	**23.12**	**23.16**	23.50
		50	25	**22.94**	23.09	23.14	23.50
		50	50	22.91	23.04	23.05	23.50
		100	0	22.93	23.10	**23.11**	23.50
	16QAM	1	0	23.01	23.16	23.22	23.50
		1	50	23.13	23.19	23.29	23.50
		1	99	23.04	23.19	23.22	23.50
		50	0	21.93	22.08	22.16	22.50
		50	25	21.96	22.08	22.11	22.50
		50	50	21.91	22.02	22.05	22.50
		100	0	21.88	22.06	22.10	22.50
	64QAM	1	0	21.95	22.03	22.11	22.50
		1	50	22.06	22.12	22.17	22.50
		1	99	22.01	22.13	22.17	22.50
		50	0	20.93	21.14	21.20	21.50
		50	25	20.93	21.06	21.14	21.50
		50	50	20.90	21.00	21.08	21.50
		100	0	20.86	21.06	21.10	21.50

LTE Band 25							
Hotspot on-Main Ant2				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				26047/1850.7	26365 /1882,5	26683/1914.3	
1.4MHz	QPSK	1	0	21.45	21.63	21.63	22.50
		1	2	21.51	21.60	21.72	22.50
		1	5	21.53	21.59	21.75	22.50
		3	0	21.58	21.80	21.84	22.50
		3	2	21.57	21.77	21.80	22.50
		3	3	21.57	21.69	21.72	22.50
		6	0	21.49	21.76	21.82	22.50
	16QAM	1	0	21.72	21.91	21.97	22.50
		1	2	21.81	21.96	22.03	22.50
		1	5	21.77	21.97	21.96	22.50
		3	0	21.59	21.71	21.81	22.50
		3	2	21.60	21.76	21.80	22.50
		3	3	21.54	21.71	21.71	22.50
		6	0	21.50	21.73	21.76	22.50
	64QAM	1	0	21.68	21.72	21.78	22.50
		1	2	21.76	21.73	21.81	22.50
		1	5	21.70	21.74	21.84	22.50
		3	0	21.50	21.66	21.82	22.50
		3	2	21.51	21.68	21.77	22.50
		3	3	21.48	21.66	21.66	22.50
		6	0	20.85	21.06	21.12	22.00
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				26055/1851.5	26365 /1882,5	26675/1913.5	
3MHz	QPSK	1	0	21.50	21.72	21.69	22.50
		1	7	21.53	21.64	21.76	22.50
		1	14	21.59	21.66	21.83	22.50
		8	0	21.63	21.89	21.91	22.50
		8	4	21.61	21.85	21.88	22.50
		8	7	21.63	21.75	21.79	22.50
		15	0	21.50	21.84	21.89	22.50
	16QAM	1	0	21.73	21.98	22.05	22.50
		1	7	21.82	21.99	22.09	22.50
		1	14	21.82	22.04	22.02	22.50
		8	0	21.64	21.76	21.86	22.50
		8	4	21.67	21.84	21.88	22.50
		8	7	21.59	21.80	21.78	22.50

		15	0	21.54	21.81	21.84	22.50
	64QAM	1	0	21.76	21.79	21.86	22.50
		1	7	21.82	21.76	21.87	22.50
		1	14	21.75	21.81	21.90	22.50
		8	0	20.93	21.09	21.25	22.00
		8	4	20.96	21.14	21.23	22.00
		8	7	20.91	21.13	21.11	22.00
		15	0	20.89	21.14	21.20	22.00
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				26065/1852.5	26365 /1882,5	26665/1912.5	
5MHz	QPSK	1	0	21.42	21.61	21.59	22.50
		1	13	21.49	21.56	21.69	22.50
		1	24	21.50	21.54	21.71	22.50
		12	0	21.55	21.75	21.80	22.50
		12	6	21.55	21.73	21.75	22.50
		12	13	21.55	21.67	21.68	22.50
		25	0	21.49	21.75	21.80	22.50
	16QAM	1	0	21.72	21.87	21.94	22.50
		1	13	21.81	21.94	22.00	22.50
		1	24	21.74	21.95	21.92	22.50
		12	0	21.57	21.67	21.78	22.50
		12	6	21.57	21.71	21.76	22.50
		12	13	21.51	21.66	21.67	22.50
		25	0	21.48	21.69	21.71	22.50
	64QAM	1	0	21.65	21.72	21.75	22.50
		1	13	21.73	21.75	21.78	22.50
		1	24	21.71	21.72	21.80	22.50
		12	0	20.86	21.00	21.21	22.00
		12	6	20.86	21.01	21.11	22.00
		12	13	20.83	20.99	21.00	22.00
		25	0	20.83	21.02	21.07	22.00
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				26090/1855	26365 /1882,5	26640/1910	
10MHz	QPSK	1	0	21.44	21.62	21.62	22.50
		1	25	21.52	21.61	21.73	22.50
		1	49	21.52	21.58	21.74	22.50
		25	0	21.58	21.80	21.84	22.50
		25	13	21.58	21.78	21.79	22.50
		25	25	21.57	21.71	21.73	22.50
		50	0	21.53	21.77	21.84	22.50
	16QAM	1	0	21.76	21.90	21.96	22.50

		1	25	21.85	21.98	22.03	22.50
		1	49	21.77	21.97	21.95	22.50
		25	0	21.60	21.72	21.82	22.50
		25	13	21.59	21.75	21.79	22.50
		25	25	21.54	21.71	21.71	22.50
		50	0	21.51	21.74	21.75	22.50
	64QAM	1	0	21.67	21.71	21.77	22.50
		1	25	21.76	21.75	21.81	22.50
		1	49	21.70	21.74	21.83	22.50
		25	0	20.89	21.05	21.21	22.00
		25	13	20.88	21.05	21.14	22.00
		25	25	20.86	21.04	21.04	22.00
		50	0	20.86	21.07	21.11	22.00
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				26115/1857.5	26365 /1882,5	26615/1907.5	
15MHz	QPSK	1	0	21.43	21.58	21.60	22.50
		1	38	21.50	21.60	21.70	22.50
		1	74	21.49	21.53	21.70	22.50
		36	0	21.56	21.76	21.81	22.50
		36	18	21.55	21.73	21.75	22.50
		36	39	21.54	21.68	21.69	22.50
		75	0	21.51	21.73	21.79	22.50
	16QAM	1	0	21.74	21.88	21.94	22.50
		1	38	21.83	21.95	22.01	22.50
		1	74	21.75	21.93	21.92	22.50
		36	0	21.57	21.70	21.79	22.50
		36	18	21.56	21.70	21.75	22.50
		36	39	21.52	21.67	21.68	22.50
		75	0	21.48	21.69	21.71	22.50
	64QAM	1	0	21.62	21.69	21.75	22.50
		1	38	21.74	21.72	21.79	22.50
		1	74	21.71	21.73	21.84	22.50
		36	0	20.88	21.07	21.22	22.00
		36	18	20.86	21.02	21.13	22.00
		36	39	20.84	21.00	21.01	22.00
		75	0	20.83	21.02	21.07	22.00
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				26140/1860	26365 /1882,5	26590/1905	
20MHz	QPSK	1	0	21.40	21.54	21.57	22.50
		1	50	**21.49**	**21.56**	**21.68**	22.50
		1	99	21.47	21.52	21.67	22.50

		50	0	**21.53**	**21.71**	**21.77**	22.50
		50	25	**21.53**	21.69	21.72	22.50
		50	50	21.51	21.63	21.65	22.50
		100	0	21.48	21.68	**21.75**	22.50
	16QAM	1	0	21.71	21.84	21.89	22.50
		1	50	21.80	21.93	21.97	22.50
		1	99	21.72	21.90	21.90	22.50
		50	0	21.54	21.66	21.76	22.50
		50	25	21.53	21.68	21.72	22.50
		50	50	21.49	21.62	21.64	22.50
		100	0	21.46	21.65	21.68	22.50
	64QAM	1	0	21.60	21.65	21.70	22.50
		1	50	21.70	21.70	21.75	22.50
		1	99	21.65	21.67	21.78	22.50
		50	0	20.83	20.99	21.15	22.00
		50	25	20.82	20.98	21.07	22.00
		50	50	20.81	20.95	20.97	22.00
		100	0	20.81	20.98	21.04	22.00

LTE Band 26							
Normal power & Receiver on & Receiver off & Hotspot on--Main Ant0				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				26697/814.7	26865/831.5	27033/848.3	
1.4MHz	QPSK	1	0	23.23	23.30	23.37	24.50
		1	2	23.40	23.45	23.37	24.50
		1	5	23.36	23.37	23.36	24.50
		3	0	23.20	23.36	23.31	24.50
		3	2	23.29	23.42	23.33	24.50
		3	3	23.30	23.35	23.27	24.50
		6	0	22.37	22.47	22.40	23.50
	16QAM	1	0	22.64	22.69	22.68	23.50
		1	2	22.71	22.77	22.67	23.50
		1	5	22.73	22.69	22.66	23.50
		3	0	22.27	22.32	22.32	23.50
		3	2	22.35	22.42	22.37	23.50
		3	3	22.30	22.39	22.25	23.50
		6	0	21.37	21.48	21.43	22.50
	64QAM	1	0	21.44	21.53	21.50	22.50
		1	2	21.53	21.59	21.55	22.50
		1	5	21.51	21.55	21.53	22.50
		3	0	21.28	21.35	21.34	22.50

		3	2	21.40	21.40	21.38	22.50
		3	3	21.35	21.40	21.23	22.50
		6	0	20.36	20.45	20.38	21.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				26705/815.5	26865/831.5	27025/847.5	
3MHz	QPSK	1	0	23.25	23.34	23.40	24.50
		1	7	23.38	23.48	23.41	24.50
		1	14	23.39	23.42	23.40	24.50
		8	0	22.30	22.48	22.44	23.50
		8	4	22.41	22.52	22.45	23.50
		8	7	22.40	22.46	22.37	23.50
		15	0	22.37	22.51	22.43	23.50
	16QAM	1	0	22.64	22.71	22.71	23.50
		1	7	22.71	22.77	22.71	23.50
		1	14	22.75	22.73	22.69	23.50
		8	0	21.38	21.45	21.44	22.50
		8	4	21.46	21.55	21.49	22.50
		8	7	21.40	21.51	21.38	22.50
		15	0	21.40	21.52	21.46	22.50
	64QAM	1	0	21.47	21.55	21.53	22.50
		1	7	21.56	21.59	21.57	22.50
		1	14	21.53	21.54	21.56	22.50
		8	0	20.39	20.48	20.46	21.50
		8	4	20.51	20.53	20.50	21.50
		8	7	20.45	20.52	20.36	21.50
		15	0	20.39	20.49	20.41	21.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				26715/816.5	26865/831.5	27015/846.5	
5MHz	QPSK	1	0	23.22	23.32	23.36	24.50
		1	13	23.36	23.44	23.38	24.50
		1	24	23.36	23.37	23.36	24.50
		12	0	22.27	22.43	22.40	23.50
		12	6	22.39	22.48	22.40	23.50
		12	13	22.38	22.44	22.33	23.50
		25	0	22.37	22.50	22.41	23.50
	16QAM	1	0	22.64	22.67	22.68	23.50
		1	13	22.71	22.75	22.68	23.50
		1	24	22.72	22.71	22.65	23.50
		12	0	21.36	21.41	21.41	22.50
		12	6	21.43	21.50	21.45	22.50
		12	13	21.37	21.46	21.34	22.50

		25	0	21.38	21.48	21.41	22.50
	64QAM	1	0	21.44	21.55	21.50	22.50
		1	13	21.53	21.61	21.54	22.50
		1	24	21.54	21.52	21.52	22.50
		12	0	20.37	20.44	20.47	21.50
		12	6	20.48	20.48	20.46	21.50
		12	13	20.42	20.47	20.32	21.50
		25	0	20.37	20.45	20.36	21.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				26740/819	26865/831.5	26990/844	
10MHz	QPSK	1	0	23.23	23.29	23.37	24.50
		1	25	23.37	23.48	23.39	24.50
		1	49	23.35	23.36	23.35	24.50
		25	0	22.28	22.44	22.41	23.50
		25	13	22.39	22.48	22.40	23.50
		25	25	22.37	22.45	22.34	23.50
		50	0	22.39	22.48	22.40	23.50
	16QAM	1	0	22.66	22.68	22.68	23.50
		1	25	22.73	22.76	22.69	23.50
		1	49	22.73	22.69	22.65	23.50
		25	0	21.36	21.44	21.42	22.50
		25	13	21.42	21.49	21.44	22.50
		25	25	21.38	21.47	21.35	22.50
		50	0	21.38	21.48	21.41	22.50
	64QAM	1	0	21.41	21.52	21.50	22.50
		1	25	21.54	21.58	21.55	22.50
		1	49	21.54	21.53	21.56	22.50
		25	0	20.39	20.51	20.48	21.50
		25	13	20.48	20.49	20.48	21.50
		25	25	20.43	20.48	20.33	21.50
		50	0	20.37	20.45	20.36	21.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				26765/821.5	26865/831.5	26965/841.5	
15MHz	QPSK	1	0	23.20	23.25	23.34	24.50
		1	38	**23.36**	**23.44**	**23.37**	24.50
		1	74	23.33	23.35	23.32	24.50
		36	0	22.25	22.39	**22.37**	23.50
		36	18	**22.37**	**22.44**	**22.37**	23.50
		36	39	22.34	22.40	22.30	23.50
		75	0	22.36	**22.43**	22.36	23.50
	16QAM	1	0	22.63	22.64	22.63	23.50

		1	38	22.70	22.74	22.65	23.50
		1	74	22.70	22.66	22.63	23.50
		36	0	21.33	21.40	21.39	22.50
		36	18	21.39	21.47	21.41	22.50
		36	39	21.35	21.42	21.31	22.50
		75	0	21.36	21.44	21.38	22.50
	64QAM	1	0	21.39	21.48	21.45	22.50
		1	38	21.50	21.56	21.51	22.50
		1	74	21.48	21.47	21.50	22.50
		36	0	20.34	20.43	20.41	21.50
		36	18	20.44	20.45	20.42	21.50
		36	39	20.40	20.43	20.29	21.50
		75	0	20.35	20.41	20.33	21.50

LTE Band 41(Power Class 2)									
Normal power-Main Ant4				Maximum Output Power (dBm)					Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)					
				39675/2498.5	40148/2545.8	40620/2593	41093/2640.3	41565/2687.5	
5MHz	QPSK	1	0	25.57	25.58	25.53	25.79	25.78	26.50
		1	13	25.67	25.61	25.70	25.82	25.81	26.50
		1	24	25.64	25.60	25.75	25.82	25.79	26.50
		12	0	24.62	24.56	24.62	24.75	24.75	25.50
		12	6	24.65	24.64	24.68	24.79	24.77	25.50
		12	13	24.65	24.65	24.66	24.80	24.76	25.50
		25	0	24.60	24.62	24.66	24.73	24.78	25.50
	16QAM	1	0	24.84	24.79	24.72	24.79	24.72	25.50
		1	13	24.91	24.88	24.90	24.89	24.88	25.50
		1	24	25.18	25.11	25.03	25.12	25.09	25.50
		12	0	23.47	23.37	23.32	23.42	23.33	24.50
		12	6	23.89	23.81	23.76	23.85	23.77	24.50
		12	13	23.88	23.81	23.72	23.82	23.77	24.50
		25	0	23.80	23.76	23.67	23.79	23.69	24.50
	64QAM	1	0	23.73	23.69	23.63	23.72	23.66	24.50
		1	13	23.82	23.80	23.76	23.81	23.79	24.50
		1	24	24.02	23.94	23.84	23.97	23.89	24.50
		12	0	22.82	22.73	22.74	22.77	22.72	23.50
		12	6	22.95	22.83	22.77	22.88	22.80	23.50
		12	13	22.87	22.81	22.74	22.82	22.77	23.50
		25	0	22.81	22.76	22.69	22.77	22.72	23.50

Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)					Tune-up
				39700/2501	40160/2547	40620/2593	41080/2639	41540/2685	
10MHz	QPSK	1	0	25.81	25.79	25.59	25.59	25.56	26.50
		1	25	25.85	25.86	25.70	25.66	25.74	26.50
		1	49	25.84	25.83	25.66	25.64	25.78	26.50
		25	0	24.78	24.80	24.65	24.61	24.66	25.50
		25	13	24.82	24.82	24.68	24.69	24.72	25.50
		25	25	24.82	24.80	24.67	24.69	24.71	25.50
		50	0	24.77	24.80	24.64	24.64	24.70	25.50
	16QAM	1	0	24.83	24.75	24.88	24.82	24.74	25.50
		1	25	24.93	24.92	24.95	24.92	24.93	25.50
		1	49	25.15	25.11	25.21	25.13	25.06	25.50
		25	0	23.45	23.38	23.50	23.42	23.36	24.50
		25	13	23.87	23.81	23.91	23.85	23.79	24.50
		25	25	23.85	23.82	23.91	23.86	23.76	24.50
		50	0	23.82	23.74	23.83	23.81	23.71	24.50
	64QAM	1	0	23.74	23.65	23.75	23.68	23.65	24.50
		1	25	23.84	23.79	23.85	23.80	23.79	24.50
		1	49	23.96	23.91	24.01	23.96	23.87	24.50
		25	0	22.80	22.77	22.85	22.78	22.74	23.50
		25	13	22.90	22.84	22.97	22.87	22.80	23.50
		25	25	22.85	22.82	22.90	22.86	22.78	23.50
		50	0	22.80	22.77	22.84	22.81	22.73	23.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)					Tune-up
				39725/2503.5	40173/2548.3	40620/2593	41068/2637.8	41515/2682.5	
15MHz	QPSK	1	0	25.80	25.75	25.58	25.55	25.54	26.50
		1	38	25.83	25.85	25.68	25.65	25.71	26.50
		1	74	25.81	25.78	25.63	25.59	25.74	26.50
		36	0	24.76	24.76	24.63	24.57	24.63	25.50
		36	18	24.79	24.77	24.65	24.64	24.68	25.50
		36	39	24.79	24.77	24.64	24.66	24.67	25.50
		75	0	24.75	24.76	24.62	24.60	24.65	25.50
	16QAM	1	0	24.81	24.73	24.86	24.80	24.72	25.50
		1	38	24.91	24.89	24.93	24.89	24.91	25.50
		1	74	25.13	25.07	25.19	25.09	25.03	25.50
		36	0	23.42	23.36	23.47	23.40	23.33	24.50
		36	18	23.84	23.76	23.88	23.80	23.75	24.50
		36	39	23.83	23.78	23.89	23.82	23.73	24.50
		75	0	23.79	23.69	23.80	23.76	23.67	24.50
	64QAM	1	0	23.69	23.63	23.70	23.66	23.63	24.50
		1	38	23.82	23.76	23.83	23.77	23.77	24.50

		1	74	23.97	23.90	24.02	23.95	23.88	24.50
		36	0	22.79	22.79	22.84	22.80	22.75	23.50
		36	18	22.88	22.81	22.95	22.84	22.79	23.50
		36	39	22.83	22.78	22.88	22.82	22.75	23.50
		75	0	22.77	22.72	22.81	22.76	22.69	23.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)					Tune-up
				39750/2506	40185/2549.5	40620/2593	41055/2636.5	41490/2680	
20MHz	QPSK	1	0	25.55	25.51	25.51	25.77	25.71	26.50
		1	50	**25.67**	**25.61**	25.69	**25.82**	**25.81**	26.50
		1	99	25.61	25.58	**25.71**	25.79	25.77	26.50
		50	0	24.60	24.52	24.59	24.73	24.71	25.50
		50	25	**24.63**	24.60	**24.65**	**24.77**	**24.73**	25.50
		50	50	24.61	**24.61**	24.63	24.76	24.72	25.50
		100	0	24.59	24.55	24.61	**24.72**	**24.71**	25.50
	16QAM	1	0	24.83	24.76	24.67	24.78	24.69	25.50
		1	50	24.90	24.87	24.87	24.88	24.87	25.50
		1	99	25.16	25.06	25.01	25.10	25.04	25.50
		50	0	23.44	23.36	23.30	23.39	23.32	24.50
		50	25	23.85	23.78	23.72	23.81	23.74	24.50
		50	50	23.86	23.77	23.69	23.80	23.73	24.50
		100	0	23.78	23.72	23.64	23.77	23.65	24.50
	64QAM	1	0	23.68	23.62	23.58	23.67	23.59	24.50
		1	50	23.79	23.75	23.73	23.78	23.74	24.50
		1	99	23.96	23.89	23.82	23.91	23.84	24.50
		50	0	22.79	22.72	22.68	22.74	22.71	23.50
		50	25	22.91	22.80	22.73	22.84	22.77	23.50
		50	50	22.85	22.77	22.71	22.80	22.73	23.50
		100	0	22.79	22.72	22.66	22.75	22.68	23.50

LTE Band 41(Power Class 2)									
Receiver on-Main Ant4				Maximum Output Power (dBm)					Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)					
				39675/2498.5	40148/2545.8	40620/2593	41093/2640.3	41565/2687.5	
5MHz	QPSK	1	0	24.58	24.57	24.51	24.80	24.75	25.50
		1	13	24.59	24.42	24.65	24.79	24.77	25.50
		1	24	24.61	24.58	24.70	24.83	24.74	25.50
		12	0	24.56	24.56	24.60	24.74	24.77	25.50
		12	6	24.61	24.61	24.66	24.81	24.76	25.50
		12	13	24.63	24.62	24.62	24.81	24.79	25.50
		25	0	24.56	24.63	24.63	24.74	24.78	25.50
	16QAM	1	0	24.67	24.83	24.73	24.71	24.95	25.50

		1	13	24.82	24.90	24.85	24.84	24.98	25.50
		1	24	24.91	25.07	24.87	24.94	25.09	25.50
		12	0	23.67	23.76	23.62	23.71	23.85	24.50
		12	6	23.73	23.85	23.70	23.74	23.92	24.50
		12	13	23.67	23.83	23.66	23.74	23.90	24.50
		25	0	23.67	23.82	23.64	23.70	23.87	24.50
	64QAM	1	0	23.69	23.82	23.64	23.71	23.86	24.50
		1	13	23.74	23.86	23.71	23.77	23.85	24.50
		1	24	23.81	23.90	23.71	23.80	23.99	24.50
		12	0	22.64	22.69	22.68	22.72	22.85	23.50
		12	6	22.73	22.82	22.69	22.75	22.97	23.50
		12	13	22.69	22.86	22.68	22.76	22.95	23.50
		25	0	22.59	22.77	22.58	22.63	22.82	23.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)					Tune-up
				39700/2501	40160/2547	40620/2593	41080/2639	41540/2685	
10MHz	QPSK	1	0	24.79	24.74	24.60	24.58	24.54	25.50
		1	25	24.80	24.78	24.62	24.47	24.69	25.50
		1	49	24.82	24.73	24.63	24.62	24.73	25.50
		25	0	24.74	24.77	24.59	24.61	24.64	25.50
		25	13	24.82	24.77	24.64	24.66	24.70	25.50
		25	25	24.81	24.81	24.65	24.66	24.67	25.50
		50	0	24.78	24.79	24.60	24.65	24.67	25.50
	16QAM	1	0	24.75	24.94	24.71	24.86	24.75	25.50
		1	25	24.88	25.00	24.86	24.94	24.88	25.50
		1	49	24.94	25.09	24.94	25.09	24.90	25.50
		25	0	23.72	23.86	23.70	23.81	23.66	24.50
		25	13	23.73	23.91	23.75	23.89	23.73	24.50
		25	25	23.74	23.90	23.70	23.88	23.70	24.50
		50	0	23.71	23.88	23.70	23.87	23.68	24.50
	64QAM	1	0	23.70	23.85	23.71	23.81	23.66	24.50
		1	25	23.77	23.87	23.77	23.86	23.74	24.50
		1	49	23.80	23.99	23.80	23.92	23.74	24.50
		25	0	22.73	22.86	22.67	22.74	22.68	23.50
		25	13	22.74	22.96	22.75	22.86	22.72	23.50
		25	25	22.76	22.95	22.72	22.91	22.72	23.50
		50	0	22.64	22.83	22.62	22.82	22.62	23.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)					Tune-up
				39725/2503.5	40173/2548.3	40620/2593	41068/2637.8	41515/2682.5	
15MHz	QPSK	1	0	24.59	24.54	24.52	24.78	24.70	25.50
		1	38	24.60	24.46	24.66	24.78	24.77	25.50
		1	74	24.60	24.57	24.69	24.79	24.68	25.50

		36	0	24.57	24.57	24.61	24.72	24.73	25.50
		36	18	24.61	24.61	24.66	24.79	24.72	25.50
		36	39	24.62	24.63	24.63	24.78	24.78	25.50
		75	0	24.58	24.61	24.62	24.76	24.75	25.50
	16QAM	1	0	24.69	24.84	24.73	24.73	24.92	25.50
		1	38	24.84	24.91	24.86	24.86	24.97	25.50
		1	74	24.92	25.05	24.87	24.92	25.05	25.50
		36	0	23.67	23.79	23.63	23.69	23.84	24.50
		36	18	23.72	23.84	23.69	23.70	23.86	24.50
		36	39	23.68	23.84	23.67	23.72	23.86	24.50
		75	0	23.67	23.82	23.64	23.68	23.83	24.50
	64QAM	1	0	23.66	23.79	23.64	23.65	23.83	24.50
		1	38	23.75	23.83	23.72	23.75	23.84	24.50
		1	74	23.81	23.91	23.75	23.81	23.98	24.50
		36	0	22.66	22.76	22.69	22.72	22.88	23.50
		36	18	22.73	22.83	22.71	22.72	22.93	23.50
		36	39	22.70	22.87	22.69	22.74	22.91	23.50
		75	0	22.59	22.77	22.58	22.61	22.78	23.50

Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)					Tune-up
				39750/2506	40185/2549.5	40620/2593	41055/2636.5	41490/2680	
20MHz	QPSK	1	0	24.56	24.50	24.49	24.75	24.66	25.50
		1	50	**24.59**	24.42	24.64	24.77	**24.73**	25.50
		1	99	24.58	**24.56**	**24.66**	**24.77**	24.67	25.50
		50	0	24.54	24.52	24.57	24.69	24.68	25.50
		50	25	**24.59**	24.57	**24.63**	**24.77**	24.68	25.50
		50	50	**24.59**	**24.58**	24.59	24.75	**24.73**	25.50
		100	0	24.55	24.56	24.58	**24.73**	**24.70**	25.50
	16QAM	1	0	24.66	24.80	24.68	24.70	24.88	25.50
		1	50	24.81	24.89	24.82	24.83	24.95	25.50
		1	99	24.89	25.02	24.85	24.89	25.02	25.50
		50	0	23.64	23.75	23.60	23.66	23.80	24.50
		50	25	23.69	23.82	23.66	23.67	23.84	24.50
		50	50	23.65	23.79	23.63	23.69	23.81	24.50
		100	0	23.65	23.78	23.61	23.66	23.79	24.50
	64QAM	1	0	23.64	23.75	23.59	23.63	23.79	24.50
		1	50	23.71	23.81	23.68	23.71	23.82	24.50
		1	99	23.75	23.85	23.69	23.75	23.92	24.50
		50	0	22.61	22.68	22.62	22.67	22.80	23.50
		50	25	22.69	22.79	22.65	22.68	22.89	23.50
		50	50	22.67	22.82	22.65	22.71	22.86	23.50
		100	0	22.57	22.73	22.55	22.59	22.74	23.50

LTE Band 41(Power Class 2)									
Receiver off-Main Ant4				Maximum Output Power (dBm)					Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)					
				39675/2498.5	40148/2545.8	40620/2593	41093/2640.3	41565/2687.5	
5MHz	QPSK	1	0	22.22	22.33	22.11	22.11	22.05	23.50
		1	13	22.32	22.29	22.15	22.16	22.18	23.50
		1	24	22.35	22.34	22.16	22.10	22.24	23.50
		12	0	22.27	22.32	22.11	22.21	22.19	23.50
		12	6	22.34	22.34	22.16	22.18	22.27	23.50
		12	13	22.31	22.32	22.17	22.12	22.23	23.50
		25	0	22.26	22.34	22.07	22.19	22.23	23.50
	16QAM	1	0	22.38	22.26	22.22	22.35	22.27	23.50
		1	13	22.51	22.44	22.42	22.49	22.45	23.50
		1	24	22.57	22.50	22.50	22.60	22.43	23.50
		12	0	22.38	22.23	22.27	22.31	22.19	23.50
		12	6	22.44	22.29	22.35	22.41	22.28	23.50
		12	13	22.35	22.29	22.26	22.37	22.22	23.50
		25	0	22.38	22.29	22.25	22.36	22.23	23.50
	64QAM	1	0	22.30	22.18	22.21	22.29	22.13	23.50
		1	13	22.40	22.32	22.33	22.38	22.27	23.50
		1	24	22.48	22.35	22.38	22.44	22.29	23.50
		12	0	22.27	22.16	22.19	22.23	22.17	23.50
		12	6	22.39	22.25	22.31	22.37	22.24	23.50
		12	13	22.29	22.23	22.20	22.31	22.16	23.50
		25	0	22.25	22.17	22.15	22.26	22.12	23.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)					Tune-up
				39700/2501	40160/2547	40620/2593	41080/2639	41540/2685	
10MHz	QPSK	1	0	22.13	22.12	22.08	22.24	22.34	23.50
		1	25	22.18	22.21	22.22	22.35	22.34	23.50
		1	49	22.18	22.14	22.27	22.37	22.38	23.50
		25	0	22.14	22.26	22.23	22.30	22.37	23.50
		25	13	22.19	22.23	22.31	22.37	22.39	23.50
		25	25	22.19	22.16	22.28	22.33	22.36	23.50
		50	0	22.11	22.21	22.27	22.30	22.36	23.50
	16QAM	1	0	22.26	22.38	22.29	22.42	22.29	23.50
		1	25	22.46	22.53	22.48	22.55	22.48	23.50
		1	49	22.53	22.62	22.46	22.60	22.52	23.50
		25	0	22.30	22.36	22.23	22.41	22.28	23.50
		25	13	22.37	22.45	22.31	22.46	22.33	23.50
		25	25	22.29	22.42	22.26	22.38	22.34	23.50
		50	0	22.28	22.41	22.27	22.41	22.34	23.50

	64QAM	1	0	22.23	22.28	22.15	22.32	22.17	23.50
		1	25	22.36	22.38	22.30	22.43	22.32	23.50
		1	49	22.37	22.46	22.32	22.47	22.37	23.50
		25	0	22.22	22.28	22.17	22.30	22.21	23.50
		25	13	22.33	22.41	22.27	22.41	22.29	23.50
		25	25	22.23	22.36	22.20	22.32	22.28	23.50
		50	0	22.18	22.31	22.16	22.28	22.22	23.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)					Tune-up
				39725/2503.5	40173/2548.3	40620/2593	41068/2637.8	41515/2682.5	
15MHz	QPSK	1	0	22.12	22.08	22.06	22.23	22.30	23.50
		1	38	22.16	22.20	22.19	22.33	22.33	23.50
		1	74	22.15	22.09	22.23	22.34	22.33	23.50
		36	0	22.12	22.22	22.20	22.28	22.33	23.50
		36	18	22.16	22.18	22.27	22.34	22.34	23.50
		36	39	22.16	22.13	22.24	22.30	22.33	23.50
		75	0	22.09	22.17	22.22	22.28	22.32	23.50
	16QAM	1	0	22.24	22.36	22.27	22.40	22.27	23.50
		1	38	22.44	22.50	22.46	22.53	22.45	23.50
		1	74	22.51	22.58	22.43	22.58	22.48	23.50
		36	0	22.27	22.34	22.20	22.38	22.26	23.50
		36	18	22.34	22.40	22.27	22.43	22.28	23.50
		36	39	22.27	22.38	22.23	22.36	22.30	23.50
		75	0	22.25	22.36	22.23	22.38	22.29	23.50
	64QAM	1	0	22.18	22.26	22.13	22.27	22.15	23.50
		1	38	22.34	22.35	22.28	22.41	22.29	23.50
		1	74	22.38	22.45	22.33	22.48	22.36	23.50
		36	0	22.21	22.30	22.18	22.29	22.23	23.50
		36	18	22.31	22.38	22.26	22.39	22.26	23.50
		36	39	22.21	22.32	22.17	22.30	22.24	23.50
		75	0	22.15	22.26	22.12	22.25	22.17	23.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)					Tune-up
				39750/2506	40185/2549.5	40620/2593	41055/2636.5	41490/2680	
20MHz	QPSK	1	0	22.09	22.04	22.03	22.20	22.26	23.50
		1	50	**22.15**	**22.16**	22.17	**22.32**	22.29	23.50
		1	99	22.13	22.08	**22.20**	22.32	**22.32**	23.50
		50	0	22.09	**22.17**	22.16	22.25	22.28	23.50
		50	25	**22.14**	22.14	**22.24**	**22.32**	**22.30**	23.50
		50	50	22.13	22.08	22.20	22.27	22.28	23.50
		100	0	22.06	22.12	22.18	**22.25**	**22.27**	23.50
	16QAM	1	0	22.21	22.32	22.22	22.37	22.23	23.50
		1	50	22.41	22.48	22.42	22.50	22.43	23.50

		1	99	22.48	22.55	22.41	22.55	22.45	23.50
		50	0	22.24	22.30	22.17	22.35	22.22	23.50
		50	25	22.31	22.38	22.24	22.40	22.26	23.50
		50	50	22.24	22.33	22.19	22.33	22.25	23.50
		100	0	22.23	22.32	22.20	22.36	22.25	23.50
	64QAM	1	0	22.16	22.22	22.08	22.25	22.11	23.50
		1	50	22.30	22.33	22.24	22.37	22.27	23.50
		1	99	22.32	22.39	22.27	22.42	22.30	23.50
		50	0	22.16	22.22	22.11	22.24	22.15	23.50
		50	25	22.27	22.34	22.20	22.35	22.22	23.50
		50	50	22.18	22.27	22.13	22.27	22.19	23.50
		100	0	22.13	22.22	22.09	22.23	22.13	23.50

LTE Band 41(Power Class 2)									
Hotspot on-Main Ant4				Maximum Output Power (dBm)					Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)					
				39675/2498.5	40148/2545.8	40620/2593	41093/2640.3	41565/2687.5	
5MHz	QPSK	1	0	23.45	23.78	23.45	23.61	23.54	24.50
		1	13	23.59	23.85	23.59	23.66	23.71	24.50
		1	24	23.63	23.77	23.63	23.63	23.77	24.50
		12	0	23.51	23.82	23.51	23.58	23.66	24.50
		12	6	23.57	23.75	23.57	23.69	23.71	24.50
		12	13	23.58	23.82	23.58	23.64	23.69	24.50
		25	0	23.50	23.86	23.50	23.64	23.70	24.50
	16QAM	1	0	23.76	23.75	23.76	23.74	23.73	24.50
		1	13	23.89	23.88	23.89	23.87	23.88	24.50
		1	24	23.98	23.97	23.98	23.99	23.91	24.50
		12	0	23.75	23.72	23.75	23.69	23.69	24.50
		12	6	23.84	23.77	23.84	23.78	23.76	24.50
		12	13	23.83	23.81	23.83	23.80	23.75	24.50
		25	0	23.76	23.74	23.76	23.74	23.69	24.50
	64QAM	1	0	23.69	23.68	23.69	23.71	23.62	24.50
		1	13	23.80	23.81	23.80	23.84	23.77	24.50
		1	24	23.89	23.87	23.89	23.86	23.78	24.50
		12	0	22.63	22.64	22.63	22.57	22.61	23.50
		12	6	22.71	22.66	22.71	22.65	22.63	23.50
		12	13	22.65	22.63	22.65	22.62	22.57	23.50
		25	0	22.63	22.61	22.63	22.61	22.56	23.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)					Tune-up
				39700/2501	40160/2547	40620/2593	41080/2639	41540/2685	
10MHz	QPSK	1	0	23.47	23.62	23.57	23.79	23.82	24.50

		1	25	23.62	23.71	23.75	23.90	23.92	24.50
		1	49	23.65	23.67	23.80	23.81	23.88	24.50
		25	0	23.54	23.63	23.70	23.87	23.84	24.50
		25	13	23.60	23.74	23.75	23.80	23.86	24.50
		25	25	23.60	23.68	23.74	23.86	23.86	24.50
		50	0	23.54	23.66	23.74	23.88	23.84	24.50
	16QAM	1	0	23.80	23.77	23.75	23.78	23.91	24.50
		1	25	23.93	23.91	23.91	23.92	24.03	24.50
		1	49	24.01	24.01	23.94	23.99	24.10	24.50
		25	0	23.78	23.74	23.73	23.77	23.88	24.50
		25	13	23.86	23.82	23.79	23.81	23.97	24.50
		25	25	23.86	23.85	23.79	23.86	23.97	24.50
		50	0	23.79	23.79	23.73	23.79	23.90	24.50
	64QAM	1	0	23.71	23.70	23.64	23.67	23.82	24.50
		1	25	23.83	23.84	23.80	23.81	23.93	24.50
		1	49	23.88	23.88	23.81	23.89	23.97	24.50
		25	0	22.66	22.62	22.61	22.69	22.72	23.50
		25	13	22.73	22.69	22.66	22.70	22.80	23.50
		25	25	22.68	22.67	22.61	22.68	22.75	23.50
		50	0	22.66	22.66	22.60	22.66	22.73	23.50

Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)					Tune-up
				39725/2503.5	40173/2548.3	40620/2593	41068/2637.8	41515/2682.5	
15MHz	QPSK	1	0	23.75	23.80	23.46	23.58	23.55	24.50
		1	38	23.89	23.89	23.60	23.70	23.72	24.50
		1	74	23.76	23.84	23.62	23.62	23.76	24.50
		36	0	23.83	23.81	23.52	23.59	23.67	24.50
		36	18	23.75	23.82	23.57	23.69	23.71	24.50
		36	39	23.83	23.82	23.57	23.65	23.70	24.50
		75	0	23.84	23.79	23.52	23.62	23.69	24.50
	16QAM	1	0	23.76	23.89	23.78	23.75	23.73	24.50
		1	38	23.89	24.01	23.91	23.88	23.89	24.50
		1	74	23.95	24.07	23.99	23.97	23.91	24.50
		36	0	23.75	23.85	23.75	23.72	23.70	24.50
		36	18	23.76	23.93	23.83	23.77	23.75	24.50
		36	39	23.82	23.94	23.84	23.81	23.76	24.50
		75	0	23.74	23.86	23.76	23.74	23.69	24.50
	64QAM	1	0	23.65	23.80	23.66	23.68	23.62	24.50
		1	38	23.78	23.91	23.81	23.81	23.78	24.50
		1	74	23.88	23.98	23.89	23.87	23.82	24.50
		36	0	22.71	22.73	22.65	22.64	22.62	23.50
		36	18	22.67	22.79	22.71	22.66	22.65	23.50
		36	39	22.64	22.72	22.66	22.63	22.58	23.50

		75	0	22.61	22.69	22.63	22.61	22.56	23.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)					Tune-up
				39750/2506	40185/2549.5	40620/2593	41055/2636.5	41490/2680	
20MHz	QPSK	1	0	23.43	23.54	23.52	23.71	23.77	24.50
		1	50	23.59	**23.66**	23.70	**23.85**	**23.87**	24.50
		1	99	**23.60**	23.61	**23.73**	23.75	23.81	24.50
		50	0	23.49	23.54	23.63	**23.78**	23.77	24.50
		50	25	**23.55**	**23.65**	**23.68**	23.71	**23.79**	24.50
		50	50	23.54	23.60	23.66	**23.78**	23.78	24.50
		100	0	23.49	23.57	23.65	**23.79**	**23.75**	24.50
	16QAM	1	0	23.75	23.71	23.68	23.72	23.84	24.50
		1	50	23.88	23.86	23.85	23.87	23.97	24.50
		1	99	23.96	23.94	23.89	23.92	24.05	24.50
		50	0	23.72	23.68	23.67	23.71	23.82	24.50
		50	25	23.80	23.75	23.72	23.74	23.90	24.50
		50	50	23.81	23.76	23.72	23.77	23.90	24.50
		100	0	23.74	23.70	23.66	23.70	23.83	24.50
	64QAM	1	0	23.64	23.64	23.57	23.61	23.75	24.50
		1	50	23.77	23.79	23.74	23.76	23.87	24.50
		1	99	23.83	23.81	23.76	23.82	23.92	24.50
		50	0	22.60	22.56	22.55	22.63	22.66	23.50
		50	25	22.67	22.62	22.59	22.63	22.73	23.50
		50	50	22.63	22.58	22.54	22.59	22.68	23.50
		100	0	22.61	22.57	22.53	22.57	22.66	23.50

LTE Band 41(Power Class 3)									
Normal power-Main Ant4				Maximum Output Power (dBm)					Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)					
				39675/2498.5	40148/2545.8	40620/2593	41093/2640.3	41565/2687.5	
5MHz	QPSK	1	0	22.55	22.59	22.64	22.79	22.80	24.00
		1	13	22.64	22.61	22.75	22.84	22.83	24.00
		1	24	22.62	22.58	22.81	22.81	22.80	24.00
		12	0	21.49	21.57	21.73	21.82	21.83	23.00
		12	6	21.66	21.65	21.77	21.88	21.86	23.00
		12	13	21.64	21.65	21.74	21.78	21.84	23.00
		25	0	21.58	21.63	21.72	21.81	21.84	23.00
	16QAM	1	0	21.67	21.77	21.69	21.89	21.86	23.00
		1	13	21.82	21.88	21.83	21.95	21.92	23.00
		1	24	21.94	22.03	21.90	22.12	22.10	23.00
		12	0	20.97	21.00	20.93	21.18	21.09	22.00
		12	6	21.00	21.07	20.97	21.22	21.15	22.00

		12	13	20.88	20.97	20.86	21.08	21.03	22.00
		25	0	20.96	21.06	20.92	21.18	21.14	22.00
		1	0	20.67	20.77	20.62	20.91	20.84	22.00
		1	13	20.76	20.84	20.73	20.90	20.87	22.00
		1	24	20.88	20.93	20.82	21.13	21.00	22.00
	64QAM	12	0	19.82	19.85	19.83	20.03	19.90	21.00
		12	6	20.01	20.08	19.97	20.25	20.16	21.00
		12	13	19.88	19.97	19.86	20.11	20.06	21.00
		25	0	19.88	19.98	19.86	20.10	20.06	21.00
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)					Tune-up
				39700/2501	40160/2547	40620/2593	41080/2639	41540/2685	
10MHz	QPSK	1	0	22.57	22.60	22.67	22.81	22.81	24.00
		1	25	22.67	22.66	22.79	22.87	22.88	24.00
		1	49	22.64	22.62	22.84	22.83	22.84	24.00
		25	0	21.52	21.62	21.77	21.85	21.88	23.00
		25	13	21.69	21.70	21.81	21.91	21.91	23.00
		25	25	21.66	21.69	21.79	21.80	21.88	23.00
		50	0	21.62	21.65	21.76	21.85	21.86	23.00
	16QAM	1	0	21.71	21.80	21.71	21.93	21.89	23.00
		1	25	21.86	21.92	21.86	21.99	21.96	23.00
		1	49	21.97	22.05	21.93	22.15	22.12	23.00
		25	0	21.00	21.05	20.97	21.21	21.14	22.00
		25	13	21.02	21.11	21.00	21.24	21.19	22.00
		25	25	20.91	21.02	20.90	21.11	21.08	22.00
		50	0	20.99	21.11	20.96	21.21	21.19	22.00
	64QAM	1	0	20.69	20.76	20.64	20.93	20.83	22.00
		1	25	20.79	20.84	20.76	20.93	20.87	22.00
		1	49	20.87	20.95	20.85	21.12	21.02	22.00
		25	0	19.85	19.90	19.83	20.06	19.95	21.00
		25	13	20.03	20.12	20.00	20.27	20.20	21.00
		25	25	19.91	20.02	19.90	20.14	20.11	21.00
		50	0	19.91	20.03	19.90	20.13	20.11	21.00
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)					Tune-up
				39725/2503.5	40173/2548.3	40620/2593	41068/2637.8	41515/2682.5	
15MHz	QPSK	1	0	22.80	22.77	22.56	22.56	22.65	24.00
		1	38	22.85	22.87	22.65	22.65	22.76	24.00
		1	74	22.80	22.79	22.61	22.57	22.80	24.00
		36	0	21.83	21.84	21.50	21.58	21.74	23.00
		36	18	21.88	21.86	21.66	21.65	21.77	23.00
		36	39	21.77	21.85	21.63	21.66	21.75	23.00
		75	0	21.83	21.82	21.60	21.61	21.71	23.00

	16QAM	1	0	21.91	21.87	21.69	21.78	21.69	23.00
		1	38	21.97	21.93	21.84	21.89	21.84	23.00
		1	74	22.13	22.08	21.95	22.01	21.90	23.00
		36	0	21.18	21.12	20.97	21.03	20.94	22.00
		36	18	21.21	21.14	20.99	21.06	20.96	22.00
		36	39	21.09	21.04	20.89	20.98	20.87	22.00
		75	0	21.18	21.14	20.96	21.06	20.92	22.00
	64QAM	1	0	20.88	20.81	20.64	20.74	20.62	22.00
		1	38	20.91	20.84	20.77	20.81	20.74	22.00
		1	74	21.13	21.01	20.88	20.94	20.86	22.00
		36	0	20.05	19.97	19.84	19.92	19.84	21.00
		36	18	20.25	20.17	20.01	20.09	19.99	21.00
		36	39	20.12	20.07	19.89	19.98	19.87	21.00
		75	0	20.10	20.06	19.88	19.98	19.86	21.00

Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)					Tune-up
				39750/2506	40185/2549.5	40620/2593	41055/2636.5	41490/2680	
20MHz	QPSK	1	0	22.53	22.52	22.62	22.77	22.73	24.00
		1	50	**22.64**	**22.61**	22.74	**22.84**	**22.83**	24.00
		1	99	22.59	22.56	**22.77**	22.78	22.78	24.00
		50	0	21.47	21.53	21.70	21.80	21.79	23.00
		50	25	**21.64**	**21.61**	**21.74**	**21.86**	**21.82**	23.00
		50	50	21.60	**21.61**	21.71	21.74	21.80	23.00
		100	0	21.57	21.56	21.67	**21.80**	**21.77**	23.00
	16QAM	1	0	21.66	21.74	21.64	21.88	21.83	23.00
		1	50	21.81	21.87	21.80	21.94	21.91	23.00
		1	99	21.92	21.98	21.88	22.10	22.05	23.00
		50	0	20.94	20.99	20.91	21.15	21.08	22.00
		50	25	20.96	21.04	20.93	21.18	21.12	22.00
		50	50	20.86	20.93	20.83	21.06	20.99	22.00
		100	0	20.94	21.02	20.89	21.16	21.10	22.00
	64QAM	1	0	20.62	20.70	20.57	20.86	20.77	22.00
		1	50	20.73	20.79	20.70	20.87	20.82	22.00
		1	99	20.82	20.88	20.80	21.07	20.95	22.00
		50	0	19.79	19.84	19.77	20.00	19.89	21.00
		50	25	19.97	20.05	19.93	20.21	20.13	21.00
		50	50	19.86	19.93	19.83	20.09	20.02	21.00
		100	0	19.86	19.94	19.83	20.08	20.02	21.00

LTE Band 41(Power Class 3)									
Receiver on-Main Ant4				Maximum Output Power (dBm)					Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)					
				39675/2498.5	40148/2545.8	40620/2593	41093/2640.3	41565/2687.5	
5MHz	QPSK	1	0	21.66	21.73	21.66	21.74	21.92	23.00
		1	13	21.70	21.70	21.70	21.85	21.91	23.00
		1	24	21.72	21.64	21.81	21.94	21.89	23.00
		12	0	21.67	21.68	21.62	21.80	21.93	23.00
		12	6	21.70	21.71	21.71	21.89	21.95	23.00
		12	13	21.77	21.73	21.72	21.82	21.90	23.00
		25	0	21.67	21.76	21.71	21.87	21.97	23.00
	16QAM	1	0	21.78	21.78	21.87	21.89	22.11	23.00
		1	13	21.91	21.85	21.94	22.03	22.09	23.00
		1	24	21.89	21.90	21.87	22.11	22.06	23.00
		12	0	20.92	20.83	20.86	21.02	21.10	22.00
		12	6	20.97	20.88	20.95	21.10	21.18	22.00
		12	13	20.94	20.95	20.95	21.10	21.10	22.00
		25	0	20.91	20.92	20.89	21.10	21.16	22.00
	64QAM	1	0	20.95	20.94	20.89	21.12	21.22	22.00
		1	13	20.34	20.30	20.30	20.39	20.46	22.00
		1	24	20.83	20.76	20.81	20.99	20.91	22.00
		12	0	19.82	19.75	19.82	19.85	19.98	21.00
		12	6	19.91	19.83	19.88	19.97	20.04	21.00
		12	13	19.82	19.83	19.81	19.98	20.00	21.00
		25	0	19.77	19.78	19.77	19.94	20.01	21.00
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)					Tune-up
				39700/2501	40160/2547	40620/2593	41080/2639	41540/2685	
10MHz	QPSK	1	0	21.68	21.74	21.69	21.75	21.95	23.00
		1	25	21.73	21.75	21.74	21.90	21.95	23.00
		1	49	21.74	21.68	21.84	21.98	21.92	23.00
		25	0	21.70	21.73	21.66	21.85	21.97	23.00
		25	13	21.73	21.76	21.75	21.94	21.99	23.00
		25	25	21.79	21.77	21.77	21.86	21.95	23.00
		50	0	21.71	21.78	21.75	21.89	22.01	23.00
	16QAM	1	0	21.82	21.81	21.89	21.92	22.13	23.00
		1	25	21.95	21.89	21.97	22.07	22.12	23.00
		1	49	21.92	21.92	21.90	22.13	22.09	23.00
		25	0	20.95	20.88	20.90	21.07	21.14	22.00
		25	13	20.99	20.92	20.98	21.14	21.21	22.00
		25	25	20.97	21.00	20.99	21.15	21.14	22.00

		50	0	20.94	20.97	20.93	21.15	21.20	22.00
	64QAM	1	0	20.97	20.93	20.91	21.11	21.24	22.00
		1	25	20.37	20.30	20.33	20.39	20.49	22.00
		1	49	20.82	20.78	20.84	21.01	20.94	22.00
		25	0	19.85	19.80	19.82	19.90	19.98	21.00
		25	13	19.93	19.87	19.91	20.01	20.07	21.00
		25	25	19.85	19.88	19.85	20.03	20.04	21.00
		50	0	19.80	19.83	19.81	19.99	20.05	21.00

Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)					Tune-up
				39725/2503.5	40173/2548.3	40620/2593	41068/2637.8	41515/2682.5	
15MHz	QPSK	1	0	21.67	21.70	21.67	21.71	21.93	23.00
		1	38	21.71	21.74	21.71	21.89	21.92	23.00
		1	74	21.71	21.63	21.80	21.93	21.88	23.00
		36	0	21.68	21.69	21.63	21.81	21.94	23.00
		36	18	21.70	21.71	21.71	21.89	21.95	23.00
		36	39	21.76	21.74	21.73	21.83	21.91	23.00
		75	0	21.69	21.74	21.70	21.85	21.96	23.00
	16QAM	1	0	21.80	21.79	21.87	21.90	22.11	23.00
		1	38	21.93	21.86	21.95	22.04	22.10	23.00
		1	74	21.90	21.88	21.87	22.09	22.06	23.00
		36	0	20.92	20.86	20.87	21.05	21.11	22.00
		36	18	20.96	20.87	20.94	21.09	21.17	22.00
		36	39	20.95	20.96	20.96	21.11	21.11	22.00
		75	0	20.91	20.92	20.89	21.10	21.16	22.00
	64QAM	1	0	20.92	20.91	20.89	21.09	21.22	22.00
		1	38	20.35	20.27	20.31	20.36	20.47	22.00
		1	74	20.83	20.77	20.85	21.00	20.95	22.00
		36	0	19.84	19.82	19.83	19.92	19.99	21.00
		36	18	19.91	19.84	19.90	19.98	20.06	21.00
		36	39	19.83	19.84	19.82	19.99	20.01	21.00
		75	0	19.77	19.78	19.77	19.94	20.01	21.00

Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)					Tune-up
				39750/2506	40185/2549.5	40620/2593	41055/2636.5	41490/2680	
20MHz	QPSK	1	0	21.64	21.66	21.64	21.67	**21.90**	23.00
		1	50	**21.70**	**21.70**	21.69	21.85	**21.90**	23.00
		1	99	21.69	21.62	**21.77**	**21.92**	21.85	23.00
		50	0	21.65	21.64	21.59	21.76	21.90	23.00
		50	25	21.68	21.67	21.68	**21.93**	**21.92**	23.00
		50	50	**21.73**	**21.69**	**21.69**	21.78	21.87	23.00
		100	0	21.66	21.69	21.66	**21.80**	**21.92**	23.00
	16QAM	1	0	21.77	21.75	21.82	21.86	22.06	23.00

		1	50	21.90	21.84	21.91	22.02	22.06	23.00
		1	99	21.87	21.85	21.85	22.06	22.04	23.00
		50	0	20.89	20.82	20.84	21.01	21.08	22.00
		50	25	20.93	20.85	20.91	21.07	21.14	22.00
		50	50	20.92	20.91	20.92	21.06	21.07	22.00
		100	0	20.89	20.88	20.86	21.06	21.13	22.00
	64QAM	1	0	20.90	20.87	20.84	21.05	21.17	22.00
		1	50	20.31	20.25	20.27	20.34	20.43	22.00
		1	99	20.77	20.71	20.79	20.94	20.89	22.00
		50	0	19.79	19.74	19.76	19.84	19.92	21.00
		50	25	19.87	19.80	19.84	19.94	20.00	21.00
		50	50	19.80	19.79	19.78	19.94	19.97	21.00
		100	0	19.75	19.74	19.74	19.90	19.98	21.00

LTE Band 41(Power Class 3)									
Receiver off-Main Ant4				Maximum Output Power (dBm)					Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)					
				39675/2498.5	40148/2545.8	40620/2593	41093/2640.3	41565/2687.5	
5MHz	QPSK	1	0	19.33	19.59	19.36	19.38	19.27	20.50
		1	13	19.45	19.55	19.35	19.42	19.39	20.50
		1	24	19.49	19.58	19.38	19.37	19.46	20.50
		12	0	19.46	19.60	19.37	19.43	19.36	20.50
		12	6	19.51	19.62	19.38	19.44	19.46	20.50
		12	13	19.53	19.55	19.45	19.43	19.44	20.50
		25	0	19.48	19.61	19.34	19.43	19.43	20.50
	16QAM	1	0	19.48	19.77	19.40	19.50	19.50	20.50
		1	13	19.66	19.72	19.50	19.52	19.61	20.50
		1	24	19.70	19.76	19.56	19.55	19.63	20.50
		12	0	19.47	19.58	19.36	19.36	19.36	20.50
		12	6	19.56	19.63	19.49	19.47	19.50	20.50
		12	13	19.53	19.60	19.46	19.52	19.49	20.50
		25	0	19.49	19.63	19.40	19.46	19.43	20.50
	64QAM	1	0	19.42	19.58	19.41	19.34	19.36	20.50
		1	13	19.49	19.57	19.49	19.36	19.42	20.50
		1	24	19.60	19.54	19.46	19.45	19.44	20.50
		12	0	19.36	19.45	19.27	19.29	19.27	20.50
		12	6	19.48	19.50	19.41	19.40	19.41	20.50
		12	13	19.43	19.48	19.34	19.40	19.36	20.50
		25	0	19.40	19.51	19.29	19.35	19.31	20.50

Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)					Tune-up
				39700/2501	40160/2547	40620/2593	41080/2639	41540/2685	
10MHz	QPSK	1	0	19.35	19.60	19.35	19.37	19.26	20.50
		1	25	19.48	19.60	19.36	19.43	19.40	20.50
		1	49	19.51	19.62	19.37	19.36	19.45	20.50
		25	0	19.49	19.65	19.37	19.43	19.36	20.50
		25	13	19.54	19.67	19.39	19.45	19.45	20.50
		25	25	19.55	19.59	19.45	19.45	19.45	20.50
		50	0	19.52	19.63	19.38	19.44	19.45	20.50
	16QAM	1	0	19.52	19.80	19.44	19.49	19.49	20.50
		1	25	19.70	19.76	19.54	19.54	19.61	20.50
		1	49	19.73	19.78	19.56	19.55	19.62	20.50
		25	0	19.50	19.63	19.37	19.37	19.37	20.50
		25	13	19.58	19.67	19.48	19.46	19.49	20.50
		25	25	19.56	19.65	19.46	19.52	19.49	20.50
		50	0	19.52	19.68	19.41	19.47	19.42	20.50
	64QAM	1	0	19.44	19.57	19.40	19.33	19.35	20.50
		1	25	19.52	19.57	19.49	19.38	19.42	20.50
		1	49	19.59	19.56	19.46	19.45	19.43	20.50
		25	0	19.39	19.50	19.28	19.30	19.28	20.50
		25	13	19.50	19.54	19.40	19.39	19.40	20.50
		25	25	19.46	19.53	19.34	19.40	19.36	20.50
		50	0	19.43	19.56	19.30	19.36	19.30	20.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)					Tune-up
				39725/2503.5	40173/2548.3	40620/2593	41068/2637.8	41515/2682.5	
15MHz	QPSK	1	0	19.34	19.56	19.34	19.33	19.24	20.50
		1	38	19.46	19.59	19.34	19.42	19.37	20.50
		1	74	19.48	19.57	19.34	19.31	19.41	20.50
		36	0	19.47	19.61	19.35	19.39	19.33	20.50
		36	18	19.51	19.62	19.36	19.40	19.41	20.50
		36	39	19.52	19.56	19.42	19.42	19.41	20.50
		75	0	19.50	19.59	19.36	19.40	19.40	20.50
	16QAM	1	0	19.50	19.78	19.42	19.47	19.47	20.50
		1	38	19.68	19.73	19.52	19.51	19.59	20.50
		1	74	19.71	19.74	19.54	19.51	19.59	20.50
		36	0	19.47	19.61	19.34	19.35	19.34	20.50
		36	18	19.55	19.62	19.45	19.41	19.45	20.50
		36	39	19.54	19.61	19.44	19.48	19.46	20.50
		75	0	19.49	19.63	19.38	19.42	19.38	20.50
	64QAM	1	0	19.39	19.55	19.35	19.31	19.33	20.50
		1	38	19.50	19.54	19.47	19.35	19.40	20.50

		1	74	19.60	19.55	19.47	19.44	19.44	20.50
		36	0	19.38	19.52	19.27	19.32	19.29	20.50
		36	18	19.48	19.51	19.38	19.36	19.39	20.50
		36	39	19.44	19.49	19.32	19.36	19.33	20.50
		75	0	19.40	19.51	19.27	19.31	19.26	20.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)					Tune-up
				39750/2506	40185/2549.5	40620/2593	41055/2636.5	41490/2680	
20MHz	QPSK	1	0	19.31	19.29	19.21	19.31	19.52	20.50
		1	50	**19.33**	**19.38**	19.35	19.45	19.55	20.50
		1	99	19.32	19.30	**19.38**	**19.46**	**19.56**	20.50
		50	0	19.32	19.34	19.29	19.44	19.56	20.50
		50	25	19.34	19.36	**19.38**	**19.49**	**19.58**	20.50
		50	50	**19.39**	**19.37**	19.37	19.49	19.51	20.50
		100	0	19.33	19.35	19.36	**19.47**	**19.54**	20.50
	16QAM	1	0	19.39	19.43	19.42	19.47	19.74	20.50
		1	50	19.49	19.49	19.55	19.65	19.71	20.50
		1	99	19.51	19.48	19.57	19.68	19.71	20.50
		50	0	19.31	19.31	19.31	19.44	19.57	20.50
		50	25	19.42	19.39	19.42	19.52	19.60	20.50
		50	50	19.41	19.43	19.42	19.51	19.56	20.50
		100	0	19.36	19.38	19.35	19.47	19.59	20.50
	64QAM	1	0	19.33	19.27	19.28	19.37	19.51	20.50
		1	50	19.43	19.33	19.36	19.46	19.52	20.50
		1	99	19.41	19.38	19.38	19.54	19.49	20.50
		50	0	19.22	19.24	19.22	19.33	19.44	20.50
		50	25	19.34	19.32	19.33	19.44	19.47	20.50
		50	50	19.29	19.31	19.29	19.41	19.44	20.50
		100	0	19.25	19.27	19.23	19.38	19.47	20.50

LTE Band 41(Power Class 3)									
Hotspot on-Main Ant4				Maximum Output Power (dBm)					Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)					
				39675/2498.5	40148/2545.8	40620/2593	41093/2640.3	41565/2687.5	
5MHz	QPSK	1	0	20.70	20.74	20.58	20.73	20.87	22.00
		1	13	20.84	20.69	20.74	20.83	20.92	22.00
		1	24	20.90	20.67	20.79	20.85	20.87	22.00
		12	0	20.74	20.68	20.67	20.73	20.87	21.00
		12	6	20.84	20.74	20.74	20.83	20.89	21.00
		12	13	20.85	20.74	20.75	20.80	20.83	21.00
		25	0	20.79	20.78	20.73	20.83	20.88	22.00
	16QAM	1	0	20.85	20.81	20.80	20.84	21.04	22.00

		1	13	21.02	20.88	20.91	21.00	21.08	22.00
		1	24	20.89	20.82	20.73	20.91	20.86	22.00
		12	0	20.83	20.65	20.69	20.78	20.87	22.00
		12	6	20.91	20.78	20.79	20.86	20.93	22.00
		12	13	20.84	20.75	20.75	20.83	20.89	22.00
		25	0	20.81	20.72	20.71	20.80	20.86	22.00
	64QAM	1	0	20.53	20.50	20.40	20.47	20.61	22.00
		1	13	20.64	20.55	20.52	20.63	20.68	22.00
		1	24	20.75	20.50	20.51	20.68	20.65	22.00
		12	0	19.87	19.68	19.78	19.80	19.99	21.00
		12	6	19.96	19.81	19.81	19.89	19.97	21.00
		12	13	19.86	19.80	19.79	19.85	19.89	21.00
		25	0	19.83	19.76	19.73	19.82	19.91	21.00
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)					Tune-up
				39700/2501	40160/2547	40620/2593	41080/2639	41540/2685	
10MHz	QPSK	1	0	20.72	20.75	20.61	20.74	20.90	22.00
		1	25	20.87	20.74	20.78	20.88	20.96	22.00
		1	49	20.92	20.71	20.82	20.89	20.90	22.00
		25	0	20.77	20.73	20.71	20.78	20.91	21.00
		25	13	20.87	20.79	20.78	20.88	20.93	21.00
		25	25	20.87	20.78	20.80	20.84	20.88	21.00
		50	0	20.83	20.80	20.77	20.85	20.92	22.00
	16QAM	1	0	20.89	20.84	20.82	20.87	21.06	22.00
		1	25	21.06	20.92	20.94	21.04	21.11	22.00
		1	49	20.92	20.84	20.76	20.93	20.89	22.00
		25	0	20.86	20.70	20.73	20.83	20.91	22.00
		25	13	20.93	20.82	20.82	20.90	20.96	22.00
		25	25	20.87	20.80	20.79	20.88	20.93	22.00
		50	0	20.84	20.77	20.75	20.85	20.90	22.00
	64QAM	1	0	20.55	20.49	20.42	20.46	20.63	22.00
		1	25	20.67	20.55	20.55	20.63	20.71	22.00
		1	49	20.74	20.52	20.54	20.70	20.68	22.00
		25	0	19.90	19.73	19.78	19.85	19.99	21.00
		25	13	19.98	19.85	19.84	19.93	20.00	21.00
		25	25	19.89	19.85	19.83	19.90	19.93	21.00
		50	0	19.86	19.81	19.77	19.87	19.95	21.00
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)					Tune-up
				39725/2503.5	40173/2548.3	40620/2593	41068/2637.8	41515/2682.5	
15MHz	QPSK	1	0	20.71	20.71	20.59	20.70	20.88	22.00
		1	38	20.85	20.73	20.75	20.87	20.93	22.00
		1	74	20.89	20.66	20.78	20.84	20.86	22.00

		36	0	20.75	20.69	20.68	20.74	20.88	21.00
		36	18	20.84	20.74	20.74	20.83	20.89	21.00
		36	39	20.84	20.75	20.76	20.81	20.84	21.00
		75	0	20.81	20.76	20.72	20.81	20.87	22.00
	16QAM	1	0	20.87	20.82	20.80	20.85	21.04	22.00
		1	38	21.04	20.89	20.92	21.01	21.09	22.00
		1	74	20.90	20.80	20.73	20.89	20.86	22.00
		36	0	20.83	20.68	20.70	20.81	20.88	22.00
		36	18	20.90	20.77	20.78	20.85	20.92	22.00
		36	39	20.85	20.76	20.76	20.84	20.90	22.00
		75	0	20.81	20.72	20.71	20.80	20.86	22.00
	64QAM	1	0	20.50	20.47	20.40	20.44	20.61	22.00
		1	38	20.65	20.52	20.53	20.60	20.69	22.00
		1	74	20.75	20.51	20.55	20.69	20.69	22.00
		36	0	19.89	19.75	19.79	19.87	20.00	21.00
		36	18	19.96	19.82	19.83	19.90	19.99	21.00
		36	39	19.87	19.81	19.80	19.86	19.90	21.00
		75	0	19.83	19.76	19.73	19.82	19.91	21.00

Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)					Tune-up
				39750/2506	40185/2549.5	40620/2593	41055/2636.5	41490/2680	
20MHz	QPSK	1	0	20.68	20.67	20.56	20.66	20.85	22.00
		1	50	20.84	**20.69**	20.73	**20.83**	**20.91**	22.00
		1	99	**20.87**	20.65	**20.75**	**20.83**	20.83	22.00
		50	0	20.72	20.64	20.64	20.69	20.84	21.00
		50	25	**20.82**	**20.70**	20.71	**20.79**	**20.86**	21.00
		50	50	20.81	**20.70**	**20.72**	20.76	20.80	21.00
		100	0	**20.78**	20.71	20.68	20.76	**20.83**	22.00
	16QAM	1	0	20.84	20.78	20.75	20.81	20.99	22.00
		1	50	21.01	20.87	20.88	20.99	21.05	22.00
		1	99	20.87	20.77	20.71	20.86	20.84	22.00
		50	0	20.80	20.64	20.67	20.77	20.85	22.00
		50	25	20.87	20.75	20.75	20.83	20.89	22.00
		50	50	20.82	20.71	20.72	20.79	20.86	22.00
		100	0	20.79	20.68	20.68	20.76	20.83	22.00
	64QAM	1	0	20.48	20.43	20.35	20.40	20.56	22.00
		1	50	20.61	20.50	20.49	20.58	20.65	22.00
		1	99	20.69	20.45	20.49	20.63	20.63	22.00
		50	0	19.84	19.67	19.72	19.79	19.93	21.00
		50	25	19.92	19.78	19.77	19.86	19.93	21.00
		50	50	19.84	19.76	19.76	19.81	19.86	21.00
		100	0	19.81	19.72	19.70	19.78	19.88	21.00

LTE Band 48							
Normal power-Main Ant2				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				56265/3652.5	56490/3675	56715/3697.5	
5MHz	QPSK	1	0	22.40	22.23	22.06	23.00
		1	13	22.33	22.14	22.14	23.00
		1	24	22.20	22.13	22.07	23.00
		12	0	21.36	21.22	21.09	22.00
		12	6	21.31	21.24	21.14	22.00
		12	13	21.28	21.18	21.10	22.00
		25	0	21.26	21.20	21.10	22.00
	16QAM	1	0	21.38	21.37	21.56	22.00
		1	13	21.42	21.39	21.49	22.00
		1	24	21.42	21.32	21.48	22.00
		12	0	20.28	20.19	20.35	21.00
		12	6	20.38	20.23	20.46	21.00
		12	13	20.32	20.24	20.42	21.00
		25	0	20.27	20.21	20.44	21.00
	64QAM	1	0	20.23	20.09	20.34	21.00
		1	13	20.22	20.08	20.26	21.00
		1	24	20.16	20.06	20.24	21.00
		12	0	19.25	19.18	19.30	20.00
		12	6	19.34	19.20	19.44	20.00
		12	13	19.25	19.17	19.35	20.00
		25	0	19.23	19.17	19.35	20.00
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				56290/3655	56490/3675	56690/3695	
10MHz	QPSK	1	0	22.35	22.14	22.00	23.00
		1	25	22.31	22.10	22.10	23.00
		1	49	22.14	22.06	21.99	23.00
		25	0	21.31	21.13	21.02	22.00
		25	13	21.27	21.16	21.06	22.00
		25	25	21.22	21.12	21.03	22.00
		50	0	21.25	21.12	21.03	22.00
	16QAM	1	0	21.37	21.30	21.48	22.00
		1	25	21.41	21.36	21.43	22.00
		1	49	21.37	21.25	21.42	22.00
		25	0	20.23	20.14	20.30	21.00
		25	13	20.31	20.15	20.38	21.00
		25	25	20.27	20.15	20.35	21.00
		50	0	20.23	20.13	20.36	21.00
	64QAM	1	0	20.15	20.02	20.26	21.00
		1	25	20.16	20.05	20.20	21.00

		1	49	20.11	19.99	20.18	21.00
		25	0	19.20	19.13	19.25	20.00
		25	13	19.27	19.12	19.36	20.00
		25	25	19.20	19.08	19.28	20.00
		50	0	19.19	19.09	19.27	20.00
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				56315/36.57.5	56490/3675	56665/3692.5	
15MHz	QPSK	1	0	22.37	22.19	22.03	23.00
		1	38	22.32	22.10	22.12	23.00
		1	74	22.18	22.12	22.04	23.00
		36	0	21.33	21.17	21.05	22.00
		36	18	21.29	21.20	21.11	22.00
		36	39	21.25	21.13	21.06	22.00
		75	0	21.23	21.15	21.06	22.00
	16QAM	1	0	21.35	21.33	21.51	22.00
		1	38	21.39	21.37	21.45	22.00
		1	74	21.39	21.29	21.46	22.00
		36	0	20.25	20.15	20.32	21.00
		36	18	20.35	20.21	20.43	21.00
		36	39	20.29	20.19	20.38	21.00
		75	0	20.25	20.17	20.41	21.00
	64QAM	1	0	20.21	20.05	20.29	21.00
		1	38	20.18	20.06	20.22	21.00
		1	74	20.10	20.00	20.18	21.00
		36	0	19.20	19.10	19.23	20.00
		36	18	19.30	19.16	19.38	20.00
		36	39	19.22	19.12	19.31	20.00
		75	0	19.21	19.13	19.32	20.00
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				56340/3660	56490/3675	56640/3690	
20MHz	QPSK	1	0	**22.32**	**22.10**	21.97	23.00
		1	50	22.30	22.06	**22.08**	23.00
		1	99	22.12	22.05	21.96	23.00
		50	0	**21.28**	21.08	20.98	22.00
		50	25	21.25	**21.12**	**21.03**	22.00
		50	50	21.19	21.07	20.99	22.00
		100	0	**21.22**	21.07	20.99	22.00
	16QAM	1	0	21.34	21.26	21.43	22.00
		1	50	21.38	21.34	21.39	22.00
		1	99	21.34	21.22	21.40	22.00
		50	0	20.20	20.10	20.27	21.00
		50	25	20.28	20.13	20.35	21.00
		50	50	20.24	20.10	20.31	21.00

		100	0	20.21	20.09	20.33	21.00
	64QAM	1	0	20.13	19.98	20.21	21.00
		1	50	20.12	20.03	20.16	21.00
		1	99	20.05	19.93	20.12	21.00
		50	0	19.15	19.05	19.18	20.00
		50	25	19.23	19.08	19.30	20.00
		50	50	19.17	19.03	19.24	20.00
		100	0	19.17	19.05	19.24	20.00

LTE Band 48							
Receiver on-Main Ant2				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				56265/3652.5	56490/3675	56715/3697.5	
5MHz	QPSK	1	0	19.40	19.51	19.40	20.50
		1	13	19.47	19.54	19.57	20.50
		1	24	19.60	19.48	19.54	20.50
		12	0	19.39	19.52	19.42	20.50
		12	6	19.46	19.56	19.52	20.50
		12	13	19.49	19.59	19.58	20.50
		25	0	19.39	19.56	19.47	20.50
	16QAM	1	0	19.68	19.67	19.83	20.50
		1	13	19.76	19.73	19.83	20.50
		1	24	19.83	19.79	19.89	20.50
		12	0	19.64	19.55	19.72	20.50
		12	6	19.76	19.65	19.84	20.50
		12	13	19.70	19.66	19.78	20.50
		25	0	19.63	19.60	19.73	20.50
	64QAM	1	0	19.54	19.47	19.64	20.50
		1	13	19.64	19.55	19.67	20.50
		1	24	19.66	19.57	19.69	20.50
		12	0	19.61	19.54	19.71	20.50
		12	6	19.72	19.61	19.82	20.50
		12	13	19.65	19.61	19.76	20.50
		25	0	19.60	19.58	19.70	20.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				56290/3655	56490/3675	56690/3695	
10MHz	QPSK	1	0	19.42	19.52	19.43	20.50
		1	25	19.50	19.59	19.61	20.50
		1	49	19.62	19.52	19.57	20.50
		25	0	19.42	19.57	19.46	20.50
		25	13	19.49	19.61	19.56	20.50
		25	25	19.51	19.63	19.63	20.50
		50	0	19.43	19.58	19.51	20.50

	16QAM	1	0	19.72	19.70	19.85	20.50
		1	25	19.80	19.77	19.86	20.50
		1	49	19.86	19.81	19.92	20.50
		25	0	19.67	19.60	19.76	20.50
		25	13	19.78	19.69	19.87	20.50
		25	25	19.73	19.71	19.82	20.50
		50	0	19.66	19.65	19.77	20.50
	64QAM	1	0	19.56	19.46	19.66	20.50
		1	25	19.67	19.55	19.70	20.50
		1	49	19.65	19.59	19.72	20.50
		25	0	19.64	19.59	19.71	20.50
		25	13	19.74	19.65	19.85	20.50
		25	25	19.68	19.66	19.80	20.50
		50	0	19.63	19.63	19.74	20.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				56315/36.57.5	56490/3675	56665/3692.5	
15MHz	QPSK	1	0	19.41	19.48	19.41	20.50
		1	38	19.48	19.58	19.58	20.50
		1	74	19.59	19.47	19.53	20.50
		36	0	19.40	19.53	19.43	20.50
		36	18	19.46	19.56	19.52	20.50
		36	39	19.48	19.60	19.59	20.50
		75	0	19.41	19.54	19.46	20.50
	16QAM	1	0	19.70	19.68	19.83	20.50
		1	38	19.78	19.74	19.84	20.50
		1	74	19.84	19.77	19.89	20.50
		36	0	19.64	19.58	19.73	20.50
		36	18	19.75	19.64	19.83	20.50
		36	39	19.71	19.67	19.79	20.50
		75	0	19.63	19.60	19.73	20.50
	64QAM	1	0	19.51	19.44	19.64	20.50
		1	38	19.65	19.52	19.68	20.50
		1	74	19.66	19.58	19.73	20.50
		36	0	19.63	19.61	19.72	20.50
		36	18	19.72	19.62	19.84	20.50
		36	39	19.66	19.62	19.77	20.50
		75	0	19.60	19.58	19.70	20.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				56340/3660	56490/3675	56640/3690	
20MHz	QPSK	1	0	19.38	19.44	19.38	20.50
		1	50	19.47	**19.54**	**19.56**	20.50
		1	99	**19.57**	19.46	19.50	20.50
		50	0	19.37	19.48	19.39	20.50

		50	25	19.44	19.52	19.49	20.50
		50	50	**19.45**	**19.55**	**19.55**	20.50
		100	0	19.38	**19.49**	19.42	20.50
	16QAM	1	0	19.67	19.64	19.78	20.50
		1	50	19.75	19.72	19.80	20.50
		1	99	19.81	19.74	19.87	20.50
		50	0	19.61	19.54	19.70	20.50
		50	25	19.72	19.62	19.80	20.50
		50	50	19.68	19.62	19.75	20.50
		100	0	19.61	19.56	19.70	20.50
	64QAM	1	0	19.49	19.40	19.59	20.50
		1	50	19.61	19.50	19.64	20.50
		1	99	19.60	19.52	19.67	20.50
		50	0	19.58	19.53	19.65	20.50
		50	25	19.68	19.58	19.78	20.50
		50	50	19.63	19.57	19.73	20.50
		100	0	19.58	19.54	19.67	20.50

LTE Band 48							
Receiver off-Main Ant2				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				56265/3652.5	56490/3675	56715/3697.5	
5MHz	QPSK	1	0	18.69	18.86	18.73	19.50
		1	13	18.73	18.80	18.86	19.50
		1	24	18.84	18.88	18.87	19.50
		12	0	18.70	18.81	18.75	19.50
		12	6	18.73	18.90	18.85	19.50
		12	13	18.83	18.82	18.85	19.50
		25	0	18.63	18.91	18.79	19.50
	16QAM	1	0	18.75	18.97	18.78	19.50
		1	13	18.87	18.96	18.87	19.50
		1	24	18.90	19.01	18.78	19.50
		12	0	18.72	18.83	18.60	19.50
		12	6	18.80	18.89	18.67	19.50
		12	13	18.78	18.99	18.68	19.50
		25	0	18.70	18.86	18.62	19.50
	64QAM	1	0	18.60	18.65	18.48	19.50
		1	13	18.72	18.67	18.60	19.50
		1	24	18.66	18.78	18.57	19.50
		12	0	18.47	18.59	18.38	19.50
		12	6	18.63	18.74	18.52	19.50
		12	13	18.65	18.85	18.56	19.50
		25	0	18.55	18.73	18.49	19.50

Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				56290/3655	56490/3675	56690/3695	
10MHz	QPSK	1	0	18.65	18.81	18.69	19.50
		1	25	18.73	18.77	18.85	19.50
		1	49	18.81	18.86	18.83	19.50
		25	0	18.67	18.76	18.71	19.50
		25	13	18.72	18.87	18.81	19.50
		25	25	18.80	18.79	18.82	19.50
		50	0	18.64	18.87	18.77	19.50
	16QAM	1	0	18.76	18.92	18.72	19.50
		1	25	18.88	18.96	18.83	19.50
		1	49	18.87	18.98	18.75	19.50
		25	0	18.70	18.80	18.58	19.50
		25	13	18.76	18.86	18.63	19.50
		25	25	18.75	18.94	18.64	19.50
		50	0	18.69	18.83	18.58	19.50
	64QAM	1	0	18.57	18.60	18.42	19.50
		1	25	18.68	18.67	18.56	19.50
		1	49	18.60	18.72	18.50	19.50
		25	0	18.43	18.52	18.32	19.50
		25	13	18.58	18.69	18.45	19.50
		25	25	18.62	18.80	18.52	19.50
		50	0	18.54	18.70	18.45	19.50

Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				56315/36.57.5	56490/3675	56665/3692.5	
15MHz	QPSK	1	0	18.64	18.77	18.67	19.50
		1	38	18.71	18.76	18.82	19.50
		1	74	18.78	18.81	18.79	19.50
		36	0	18.65	18.72	18.68	19.50
		36	18	18.69	18.82	18.77	19.50
		36	39	18.77	18.76	18.78	19.50
		75	0	18.62	18.83	18.72	19.50
	16QAM	1	0	18.74	18.90	18.70	19.50
		1	38	18.86	18.93	18.81	19.50
		1	74	18.85	18.94	18.72	19.50
		36	0	18.67	18.78	18.55	19.50
		36	18	18.73	18.81	18.59	19.50
		36	39	18.73	18.90	18.61	19.50
		75	0	18.66	18.78	18.54	19.50
	64QAM	1	0	18.52	18.58	18.40	19.50
		1	38	18.66	18.64	18.54	19.50
		1	74	18.61	18.71	18.51	19.50
		36	0	18.42	18.54	18.33	19.50

		36	18	18.56	18.66	18.44	19.50
		36	39	18.60	18.76	18.49	19.50
		75	0	18.51	18.65	18.41	19.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				56340/3660	56490/3675	56640/3690	
20MHz	QPSK	1	0	18.61	18.73	18.64	19.50
		1	50	18.70	18.72	**18.80**	19.50
		1	99	**18.76**	**18.80**	18.76	19.50
		50	0	18.62	18.67	18.64	19.50
		50	25	18.67	**18.78**	**18.74**	19.50
		50	50	**18.74**	18.71	**18.74**	19.50
		100	0	18.59	**18.78**	18.68	19.50
	16QAM	1	0	18.71	18.86	18.65	19.50
		1	50	18.83	18.91	18.77	19.50
		1	99	18.82	18.91	18.70	19.50
		50	0	18.64	18.74	18.52	19.50
		50	25	18.70	18.79	18.56	19.50
		50	50	18.70	18.85	18.57	19.50
		100	0	18.64	18.74	18.51	19.50
	64QAM	1	0	18.50	18.54	18.35	19.50
		1	50	18.62	18.62	18.50	19.50
		1	99	18.55	18.65	18.45	19.50
		50	0	18.37	18.46	18.26	19.50
		50	25	18.52	18.62	18.38	19.50
		50	50	18.57	18.71	18.45	19.50
		100	0	18.49	18.61	18.38	19.50

LTE Band 66							
Normal power-Main Ant2				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				131979/1710.7	132322 /1745	132665/1779.3	
1.4MHz	QPSK	1	0	23.67	23.59	23.50	24.50
		1	2	23.58	23.48	23.47	24.50
		1	5	23.45	23.31	23.45	24.50
		3	0	23.73	23.54	23.58	24.50
		3	2	23.63	23.53	23.57	24.50
		3	3	23.55	23.41	23.43	24.50
		6	0	22.72	22.53	22.61	23.50
	16QAM	1	0	23.10	22.99	22.93	23.50
		1	2	23.01	22.92	22.88	23.50
		1	5	22.85	22.78	22.82	23.50
		3	0	22.72	22.51	22.59	23.50

		3	2	22.75	22.51	22.56	23.50
		3	3	22.53	22.46	22.42	23.50
		6	0	21.70	21.53	21.59	22.50
	64QAM	1	0	21.99	21.91	21.76	22.50
		1	2	21.86	21.59	21.79	22.50
		1	5	21.72	21.53	21.77	22.50
		3	0	21.76	21.51	21.62	22.50
		3	2	21.72	21.48	21.60	22.50
		3	3	21.54	21.42	21.43	22.50
		6	0	20.71	20.51	20.59	21.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				131987/1711.5	132322 /1745	132657/1778.5	
3MHz	QPSK	1	0	23.69	23.63	23.53	24.50
		1	7	23.56	23.51	23.51	24.50
		1	14	23.48	23.36	23.49	24.50
		8	0	22.83	22.66	22.71	23.50
		8	4	22.75	22.63	22.69	23.50
		8	7	22.65	22.52	22.53	23.50
		15	0	22.72	22.57	22.64	23.50
	16QAM	1	0	23.10	23.01	22.96	23.50
		1	7	23.01	22.92	22.92	23.50
		1	14	22.87	22.82	22.85	23.50
		8	0	21.83	21.64	21.71	22.50
		8	4	21.86	21.64	21.68	22.50
		8	7	21.63	21.58	21.55	22.50
		15	0	21.73	21.57	21.62	22.50
	64QAM	1	0	22.02	21.93	21.79	22.50
		1	7	21.89	21.59	21.81	22.50
		1	14	21.74	21.52	21.80	22.50
		8	0	20.87	20.64	20.74	21.50
		8	4	20.83	20.61	20.72	21.50
		8	7	20.64	20.54	20.56	21.50
		15	0	20.74	20.55	20.62	21.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				131997/1712.5	132322 /1745	132647/1777.5	
5MHz	QPSK	1	0	23.66	23.61	23.49	24.50
		1	13	23.54	23.47	23.48	24.50
		1	24	23.45	23.31	23.45	24.50
		12	0	22.80	22.61	22.67	23.50
		12	6	22.73	22.59	22.64	23.50
		12	13	22.63	22.50	22.49	23.50

		25	0	22.72	22.56	22.62	23.50
	16QAM	1	0	23.10	22.97	22.93	23.50
		1	13	23.01	22.90	22.89	23.50
		1	24	22.84	22.80	22.81	23.50
		12	0	21.81	21.60	21.68	22.50
		12	6	21.83	21.59	21.64	22.50
		12	13	21.60	21.53	21.51	22.50
		25	0	21.71	21.53	21.57	22.50
	64QAM	1	0	21.99	21.93	21.76	22.50
		1	13	21.86	21.61	21.78	22.50
		1	24	21.75	21.50	21.76	22.50
		12	0	20.85	20.60	20.75	21.50
		12	6	20.80	20.56	20.68	21.50
		12	13	20.61	20.49	20.52	21.50
		25	0	20.72	20.51	20.57	21.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				132022/1715	132322 /1745	132622/1775	
10MHz	QPSK	1	0	23.68	23.62	23.52	24.50
		1	25	23.57	23.52	23.52	24.50
		1	49	23.47	23.35	23.48	24.50
		25	0	22.83	22.66	22.71	23.50
		25	13	22.76	22.64	22.68	23.50
		25	25	22.65	22.54	22.54	23.50
		50	0	22.76	22.58	22.66	23.50
	16QAM	1	0	23.14	23.00	22.95	23.50
		1	25	23.05	22.94	22.92	23.50
		1	49	22.87	22.82	22.84	23.50
		25	0	21.84	21.65	21.72	22.50
		25	13	21.85	21.63	21.67	22.50
		25	25	21.63	21.58	21.55	22.50
		50	0	21.74	21.58	21.61	22.50
	64QAM	1	0	22.01	21.92	21.78	22.50
		1	25	21.89	21.61	21.81	22.50
		1	49	21.74	21.52	21.79	22.50
		25	0	20.88	20.65	20.75	21.50
		25	13	20.82	20.60	20.71	21.50
		25	25	20.64	20.54	20.56	21.50
		50	0	20.75	20.56	20.61	21.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				132047/1717.5	132322 /1745	132597/1772.5	
15MHz	QPSK	1	0	23.67	23.58	23.50	24.50

		1	38	23.55	23.51	23.49	24.50
		1	74	23.44	23.30	23.44	24.50
		36	0	22.81	22.62	22.68	23.50
		36	18	22.73	22.59	22.64	23.50
		36	39	22.62	22.51	22.50	23.50
		75	0	22.74	22.54	22.61	23.50
	16QAM	1	0	23.12	22.98	22.93	23.50
		1	38	23.03	22.91	22.90	23.50
		1	74	22.85	22.78	22.81	23.50
		36	0	21.81	21.63	21.69	22.50
		36	18	21.82	21.58	21.63	22.50
		36	39	21.61	21.54	21.52	22.50
		75	0	21.71	21.53	21.57	22.50
	64QAM	1	0	21.96	21.90	21.76	22.50
		1	38	21.87	21.58	21.79	22.50
		1	74	21.75	21.51	21.80	22.50
		36	0	20.87	20.67	20.76	21.50
		36	18	20.80	20.57	20.70	21.50
		36	39	20.62	20.50	20.53	21.50
		75	0	20.72	20.51	20.57	21.50

Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				132072/1720	132322/ 1745	132572/1770	
20MHz	QPSK	1	0	**23.64**	**23.54**	23.47	24.50
		1	50	23.54	23.47	**23.47**	24.50
		1	99	23.42	23.29	23.41	24.50
		50	0	**22.78**	**22.57**	**22.64**	23.50
		50	25	22.71	22.55	22.61	23.50
		50	50	22.59	22.46	22.46	23.50
		100	0	**22.71**	22.49	22.57	23.50
	16QAM	1	0	23.09	22.94	22.88	23.50
		1	50	23.00	22.89	22.86	23.50
		1	99	22.82	22.75	22.79	23.50
		50	0	21.78	21.59	21.66	22.50
		50	25	21.79	21.56	21.60	22.50
		50	50	21.58	21.49	21.48	22.50
		100	0	21.69	21.49	21.54	22.50
	64QAM	1	0	21.94	21.86	21.71	22.50
		1	50	21.83	21.56	21.75	22.50
		1	99	21.69	21.45	21.74	22.50
		50	0	20.82	20.59	20.69	21.50
		50	25	20.76	20.53	20.64	21.50
		50	50	20.59	20.45	20.49	21.50

		100	0	20.70	20.47	20.54	21.50

LTE Band 66							
Receiver on-Main Ant2				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				131979/1710.7	132322 /1745	132665/1779.3	
1.4MHz	QPSK	1	0	20.78	20.73	20.62	21.50
		1	2	20.63	20.61	20.59	21.50
		1	5	20.56	20.43	20.58	21.50
		3	0	20.89	20.74	20.78	21.50
		3	2	20.80	20.70	20.75	21.50
		3	3	20.71	20.60	20.60	21.50
		6	0	20.78	20.65	20.71	21.50
	16QAM	1	0	21.16	21.08	21.04	21.50
		1	2	21.07	20.97	20.99	21.50
		1	5	20.93	20.88	20.90	21.50
		3	0	20.88	20.70	20.76	21.50
		3	2	20.91	20.68	20.73	21.50
		3	3	20.68	20.65	20.61	21.50
		6	0	20.77	20.63	20.67	21.50
	64QAM	1	0	21.06	20.99	20.86	21.50
		1	2	20.95	20.63	20.87	21.50
		1	5	20.82	20.60	20.88	21.50
		3	0	20.98	20.78	20.87	21.50
		3	2	20.93	20.71	20.84	21.50
		3	3	20.73	20.65	20.66	21.50
		6	0	20.82	20.65	20.71	21.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				131987/1711.5	132322 /1745	132657/1778.5	
3MHz	QPSK	1	0	20.80	20.78	20.65	21.50
		1	7	20.64	20.61	20.61	21.50
		1	14	20.60	20.49	20.63	21.50
		8	0	20.91	20.78	20.81	21.50
		8	4	20.82	20.74	20.80	21.50
		8	7	20.74	20.61	20.63	21.50
		15	0	20.76	20.68	20.74	21.50
	16QAM	1	0	21.14	21.11	21.07	21.50
		1	7	21.05	20.98	21.01	21.50
		1	14	20.95	20.92	20.94	21.50
		8	0	20.90	20.71	20.78	21.50
		8	4	20.95	20.74	20.78	21.50

		8	7	20.70	20.69	20.64	21.50
		15	0	20.79	20.67	20.72	21.50
	64QAM	1	0	21.12	21.02	20.89	21.50
		1	7	20.97	20.64	20.89	21.50
		1	14	20.81	20.61	20.88	21.50
		8	0	20.98	20.75	20.85	21.50
		8	4	20.96	20.75	20.86	21.50
		8	7	20.75	20.69	20.69	21.50
		15	0	20.84	20.69	20.76	21.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				131997/1712.5	132322 /1745	132647/1777.5	
5MHz	QPSK	1	0	20.75	20.69	20.59	21.50
		1	13	20.62	20.57	20.57	21.50
		1	24	20.54	20.42	20.55	21.50
		12	0	20.86	20.69	20.74	21.50
		12	6	20.78	20.66	20.72	21.50
		12	13	20.68	20.55	20.56	21.50
		25	0	20.75	20.60	20.67	21.50
	16QAM	1	0	21.13	21.04	20.99	21.50
		1	13	21.04	20.95	20.95	21.50
		1	24	20.90	20.85	20.88	21.50
		12	0	20.85	20.66	20.73	21.50
		12	6	20.88	20.66	20.70	21.50
		12	13	20.65	20.60	20.57	21.50
		25	0	20.75	20.59	20.64	21.50
	64QAM	1	0	21.04	20.95	20.81	21.50
		1	13	20.91	20.61	20.83	21.50
		1	24	20.76	20.54	20.82	21.50
		12	0	20.93	20.70	20.80	21.50
		12	6	20.89	20.67	20.78	21.50
		12	13	20.70	20.60	20.62	21.50
		25	0	20.80	20.61	20.68	21.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				132022/1715	132322 /1745	132622/1775	
10MHz	QPSK	1	0	20.72	20.67	20.55	21.50
		1	25	20.60	20.53	20.54	21.50
		1	49	20.51	20.37	20.51	21.50
		25	0	20.83	20.64	20.70	21.50
		25	13	20.76	20.62	20.67	21.50
		25	25	20.66	20.53	20.52	21.50
		50	0	20.75	20.59	20.65	21.50

	16QAM	1	0	21.13	21.00	20.96	21.50
		1	25	21.04	20.93	20.92	21.50
		1	49	20.87	20.83	20.84	21.50
		25	0	20.83	20.62	20.70	21.50
		25	13	20.85	20.61	20.66	21.50
		25	25	20.62	20.55	20.53	21.50
		50	0	20.73	20.55	20.59	21.50
	64QAM	1	0	21.01	20.95	20.78	21.50
		1	25	20.88	20.63	20.80	21.50
		1	49	20.77	20.52	20.78	21.50
		25	0	20.91	20.66	20.81	21.50
		25	13	20.86	20.62	20.74	21.50
		25	25	20.67	20.55	20.58	21.50
		50	0	20.78	20.57	20.63	21.50

Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				132047/1717.5	132322 /1745	132597/1772.5	
15MHz	QPSK	1	0	20.74	20.68	20.58	21.50
		1	38	20.63	20.58	20.58	21.50
		1	74	20.53	20.41	20.54	21.50
		36	0	20.86	20.69	20.74	21.50
		36	18	20.79	20.67	20.71	21.50
		36	39	20.68	20.57	20.57	21.50
		75	0	20.79	20.61	20.69	21.50
	16QAM	1	0	21.17	21.03	20.98	21.50
		1	38	21.08	20.97	20.95	21.50
		1	74	20.90	20.85	20.87	21.50
		36	0	20.86	20.67	20.74	21.50
		36	18	20.87	20.65	20.69	21.50
		36	39	20.65	20.60	20.57	21.50
		75	0	20.76	20.60	20.63	21.50
	64QAM	1	0	21.03	20.94	20.80	21.50
		1	38	20.91	20.63	20.83	21.50
		1	74	20.76	20.54	20.81	21.50
		36	0	20.94	20.71	20.81	21.50
		36	18	20.88	20.66	20.77	21.50
		36	39	20.70	20.60	20.62	21.50
		75	0	20.81	20.62	20.67	21.50

Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				132072/1720	132322 /1745	132572/1770	
20MHz	QPSK	1	0	**20.70**	**20.60**	20.53	21.50
		1	50	20.60	20.53	**20.53**	21.50

		1	99	20.48	20.35	20.47	21.50
		50	0	**20.81**	**20.60**	**20.67**	21.50
		50	25	20.74	20.58	20.64	21.50
		50	50	20.62	20.49	20.49	21.50
		100	0	**20.74**	20.52	20.60	21.50
	16QAM	1	0	21.12	20.97	20.91	21.50
		1	50	21.03	20.92	20.89	21.50
		1	99	20.85	20.78	20.82	21.50
		50	0	20.80	20.61	20.68	21.50
		50	25	20.81	20.58	20.62	21.50
		50	50	20.60	20.51	20.50	21.50
		100	0	20.71	20.51	20.56	21.50
	64QAM	1	0	20.96	20.88	20.73	21.50
		1	50	20.85	20.58	20.77	21.50
		1	99	20.71	20.47	20.76	21.50
		50	0	20.88	20.65	20.75	21.50
		50	25	20.82	20.59	20.70	21.50
		50	50	20.65	20.51	20.55	21.50
		100	0	20.76	20.53	20.60	21.50

LTE Band 66							
Receiver off-Main Ant2				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				131979/1710.7	132322 /1745	132665/1779.3	
1.4MHz	QPSK	1	0	22.63	22.57	22.52	23.50
		1	2	22.59	22.49	22.53	23.50
		1	5	22.41	22.36	22.49	23.50
		3	0	22.75	22.66	22.74	23.50
		3	2	22.71	22.70	22.72	23.50
		3	3	22.60	22.55	22.61	23.50
		6	0	22.57	22.50	22.60	23.50
	16QAM	1	0	22.95	22.77	22.89	23.50
		1	2	22.83	22.77	22.72	23.50
		1	5	22.66	22.60	22.63	23.50
		3	0	22.41	22.41	22.54	23.50
		3	2	22.52	22.44	22.55	23.50
		3	3	22.62	22.38	22.39	23.50
		6	0	21.44	21.47	21.57	22.50
	64QAM	1	0	21.78	21.74	21.79	22.50
		1	2	21.82	21.65	21.74	22.50
		1	5	21.54	21.63	21.72	22.50
		3	0	21.62	21.40	21.53	22.50

		3	2	21.59	21.44	21.53	22.50
		3	3	21.44	21.35	21.37	22.50
		6	0	20.60	20.45	20.57	21.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				131987/1711.5	132322 /1745	132657/1778.5	
3MHz	QPSK	1	0	22.65	22.61	22.55	23.50
		1	7	22.57	22.52	22.57	23.50
		1	14	22.44	22.41	22.53	23.50
		8	0	22.68	22.61	22.70	23.50
		8	4	22.66	22.63	22.67	23.50
		8	7	22.53	22.49	22.54	23.50
		15	0	22.57	22.54	22.63	23.50
	16QAM	1	0	22.95	22.79	22.92	23.50
		1	7	22.83	22.77	22.76	23.50
		1	14	22.68	22.64	22.66	23.50
		8	0	21.52	21.54	21.66	22.50
		8	4	21.63	21.57	21.67	22.50
		8	7	21.72	21.50	21.52	22.50
		15	0	21.47	21.51	21.60	22.50
	64QAM	1	0	21.81	21.76	21.82	22.50
		1	7	21.85	21.65	21.76	22.50
		1	14	21.56	21.62	21.75	22.50
		8	0	20.73	20.53	20.65	21.50
		8	4	20.70	20.57	20.65	21.50
		8	7	20.54	20.47	20.50	21.50
		15	0	20.63	20.49	20.60	21.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				131997/1712.5	132322 /1745	132647/1777.5	
5MHz	QPSK	1	0	22.60	22.52	22.49	23.50
		1	13	22.55	22.48	22.53	23.50
		1	24	22.38	22.34	22.45	23.50
		12	0	22.63	22.52	22.63	23.50
		12	6	22.62	22.55	22.59	23.50
		12	13	22.47	22.43	22.47	23.50
		25	0	22.56	22.46	22.56	23.50
	16QAM	1	0	22.94	22.72	22.84	23.50
		1	13	22.82	22.74	22.70	23.50
		1	24	22.63	22.57	22.60	23.50
		12	0	21.47	21.49	21.61	22.50
		12	6	21.56	21.49	21.59	22.50
		12	13	21.67	21.41	21.45	22.50

		25	0	21.43	21.43	21.52	22.50
	64QAM	1	0	21.73	21.69	21.74	22.50
		1	13	21.79	21.62	21.70	22.50
		1	24	21.51	21.55	21.69	22.50
		12	0	20.68	20.48	20.60	21.50
		12	6	20.63	20.49	20.57	21.50
		12	13	20.49	20.38	20.43	21.50
		25	0	20.59	20.41	20.52	21.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				132022/1715	132322 /1745	132622/1775	
10MHz	QPSK	1	0	22.63	22.56	22.52	23.50
		1	25	22.56	22.52	22.55	23.50
		1	49	22.40	22.35	22.48	23.50
		25	0	22.66	22.57	22.67	23.50
		25	13	22.64	22.59	22.62	23.50
		25	25	22.50	22.48	22.51	23.50
		50	0	22.59	22.51	22.60	23.50
	16QAM	1	0	22.97	22.76	22.89	23.50
		1	25	22.85	22.76	22.74	23.50
		1	49	22.66	22.60	22.62	23.50
		25	0	21.50	21.53	21.64	22.50
		25	13	21.59	21.51	21.62	22.50
		25	25	21.70	21.46	21.49	22.50
		50	0	21.45	21.47	21.55	22.50
	64QAM	1	0	21.75	21.73	21.79	22.50
		1	25	21.83	21.64	21.74	22.50
		1	49	21.57	21.61	21.75	22.50
		25	0	20.73	20.56	20.67	21.50
		25	13	20.67	20.53	20.63	21.50
		25	25	20.52	20.43	20.47	21.50
		50	0	20.61	20.45	20.55	21.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				132047/1717.5	132322 /1745	132597/1772.5	
15MHz	QPSK	1	0	22.59	22.48	22.47	23.50
		1	38	22.53	22.47	22.50	23.50
		1	74	22.35	22.29	22.41	23.50
		36	0	22.61	22.48	22.60	23.50
		36	18	22.59	22.50	22.55	23.50
		36	39	22.44	22.40	22.43	23.50
		75	0	22.54	22.42	22.51	23.50
	16QAM	1	0	22.92	22.70	22.82	23.50

		1	38	22.80	22.71	22.68	23.50
		1	74	22.61	22.53	22.57	23.50
		36	0	21.44	21.47	21.58	22.50
		36	18	21.53	21.44	21.55	22.50
		36	39	21.65	21.37	21.42	22.50
		75	0	21.40	21.38	21.48	22.50
	64QAM	1	0	21.68	21.67	21.72	22.50
		1	38	21.77	21.59	21.68	22.50
		1	74	21.52	21.54	21.70	22.50
		36	0	20.67	20.50	20.61	21.50
		36	18	20.61	20.46	20.56	21.50
		36	39	20.47	20.34	20.40	21.50
		75	0	20.56	20.36	20.48	21.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				132072/1720	132322 /1745	132572/1770	
20MHz	QPSK	1	0	**22.56**	**22.44**	22.44	23.50
		1	50	22.52	22.43	**22.48**	23.50
		1	99	22.33	22.28	22.38	23.50
		50	0	**22.58**	22.43	**22.56**	23.50
		50	25	22.57	**22.46**	22.52	23.50
		50	50	22.41	22.35	22.39	23.50
		100	0	**22.51**	22.37	22.47	23.50
	16QAM	1	0	22.89	22.66	22.77	23.50
		1	50	22.77	22.69	22.64	23.50
		1	99	22.58	22.50	22.55	23.50
		50	0	21.41	21.43	21.55	22.50
		50	25	21.50	21.42	21.52	22.50
		50	50	21.62	21.32	21.38	22.50
		100	0	21.38	21.34	21.45	22.50
	64QAM	1	0	21.66	21.63	21.67	22.50
		1	50	21.73	21.57	21.64	22.50
		1	99	21.46	21.48	21.64	22.50
		50	0	20.62	20.42	20.54	21.50
		50	25	20.57	20.42	20.50	21.50
		50	50	20.44	20.29	20.36	21.50
		100	0	20.54	20.32	20.45	21.50

LTE Band 66							
Hotspot on-Main Ant2				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				131979/1710.7	132322 /1745	132665/1779.3	
1.4MHz	QPSK	1	0	21.24	21.26	21.07	22.20
		1	2	21.15	21.01	21.05	22.20
		1	5	21.05	20.94	21.09	22.20
		3	0	21.30	21.19	21.27	22.20
		3	2	21.22	21.18	21.21	22.20
		3	3	21.13	21.05	21.11	22.20
		6	0	21.16	21.08	21.17	22.20
	16QAM	1	0	21.60	21.59	21.46	22.20
		1	2	21.48	21.40	21.36	22.20
		1	5	21.27	21.37	21.41	22.20
		3	0	21.30	21.06	21.21	22.20
		3	2	21.31	21.15	21.23	22.20
		3	3	21.09	21.08	21.04	22.20
		6	0	21.12	21.03	21.13	22.20
	64QAM	1	0	21.42	21.34	21.37	22.20
		1	2	21.27	21.17	21.33	22.20
		1	5	21.16	21.17	21.25	22.20
		3	0	21.71	21.46	21.66	22.20
		3	2	21.71	21.52	21.65	22.20
		3	3	21.51	21.48	21.46	22.20
		6	0	20.68	20.59	20.66	21.70
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				131987/1711.5	132322 /1745	132657/1778.5	
3MHz	QPSK	1	0	21.26	21.30	21.10	22.20
		1	7	21.13	21.04	21.09	22.20
		1	14	21.08	20.99	21.13	22.20
		8	0	21.28	21.19	21.28	22.20
		8	4	21.22	21.16	21.21	22.20
		8	7	21.11	21.04	21.09	22.20
		15	0	21.16	21.12	21.20	22.20
	16QAM	1	0	21.60	21.61	21.49	22.20
		1	7	21.48	21.40	21.40	22.20
		1	14	21.29	21.41	21.44	22.20
		8	0	21.29	21.07	21.21	22.20
		8	4	21.30	21.16	21.23	22.20
		8	7	21.07	21.08	21.05	22.20

		15	0	21.15	21.07	21.16	22.20
	64QAM	1	0	21.45	21.36	21.40	22.20
		1	7	21.30	21.17	21.35	22.20
		1	14	21.18	21.16	21.28	22.20
		8	0	20.82	20.59	20.78	21.70
		8	4	20.82	20.65	20.77	21.70
		8	7	20.61	20.60	20.59	21.70
		15	0	20.71	20.63	20.69	21.70
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				131997/1712.5	132322 /1745	132647/1777.5	
5MHz	QPSK	1	0	21.25	21.29	21.09	22.20
		1	13	21.14	21.05	21.10	22.20
		1	24	21.07	20.98	21.12	22.20
		12	0	21.28	21.19	21.28	22.20
		12	6	21.23	21.17	21.20	22.20
		12	13	21.11	21.06	21.10	22.20
		25	0	21.20	21.13	21.22	22.20
	16QAM	1	0	21.64	21.60	21.48	22.20
		1	13	21.52	21.42	21.40	22.20
		1	24	21.29	21.41	21.43	22.20
		12	0	21.30	21.08	21.22	22.20
		12	6	21.29	21.15	21.22	22.20
		12	13	21.07	21.08	21.05	22.20
		25	0	21.16	21.08	21.15	22.20
	64QAM	1	0	21.44	21.35	21.39	22.20
		1	13	21.30	21.19	21.35	22.20
		1	24	21.18	21.16	21.27	22.20
		12	0	20.83	20.60	20.79	21.70
		12	6	20.81	20.64	20.76	21.70
		12	13	20.61	20.60	20.59	21.70
		25	0	20.72	20.64	20.68	21.70
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				132022/1715	132322 /1745	132622/1775	
10MHz	QPSK	1	0	21.24	21.25	21.07	22.20
		1	25	21.12	21.04	21.07	22.20
		1	49	21.04	20.93	21.08	22.20
		25	0	21.26	21.15	21.25	22.20
		25	13	21.20	21.12	21.16	22.20
		25	25	21.08	21.03	21.06	22.20
		50	0	21.18	21.09	21.17	22.20
	16QAM	1	0	21.62	21.58	21.46	22.20

		1	25	21.50	21.39	21.38	22.20
		1	49	21.27	21.37	21.40	22.20
		25	0	21.27	21.06	21.19	22.20
		25	13	21.26	21.10	21.18	22.20
		25	25	21.05	21.04	21.02	22.20
		50	0	21.13	21.03	21.11	22.20
	64QAM	1	0	21.39	21.33	21.37	22.20
		1	25	21.28	21.16	21.33	22.20
		1	49	21.19	21.15	21.28	22.20
		25	0	20.82	20.62	20.80	21.70
		25	13	20.79	20.61	20.75	21.70
		25	25	20.59	20.56	20.56	21.70
		50	0	20.69	20.59	20.64	21.70
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				132047/1717.5	132322 /1745	132597/1772.5	
15MHz	QPSK	1	0	21.21	21.21	21.04	22.20
		1	38	21.11	21.00	21.05	22.20
		1	74	21.02	20.92	21.05	22.20
		36	0	21.23	21.10	21.21	22.20
		36	18	21.18	21.08	21.13	22.20
		36	39	21.05	20.98	21.02	22.20
		75	0	21.15	21.04	21.13	22.20
	16QAM	1	0	21.59	21.54	21.41	22.20
		1	38	21.47	21.37	21.34	22.20
		1	74	21.24	21.34	21.38	22.20
		36	0	21.24	21.02	21.16	22.20
		36	18	21.23	21.08	21.15	22.20
		36	39	21.02	20.99	20.98	22.20
		75	0	21.11	20.99	21.08	22.20
	64QAM	1	0	21.37	21.29	21.32	22.20
		1	38	21.24	21.14	21.29	22.20
		1	74	21.13	21.09	21.22	22.20
		36	0	20.77	20.54	20.73	21.70
		36	18	20.75	20.57	20.69	21.70
		36	39	20.56	20.51	20.52	21.70
		75	0	20.67	20.55	20.61	21.70
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				132072/1720	132322 /1745	132572/1770	
20MHz	QPSK	1	0	**21.19**	**21.14**	21.02	22.20
		1	50	21.11	21.00	**21.04**	22.20
		1	99	20.99	20.90	21.01	22.20

		50	0	**21.21**	**21.06**	**21.18**	22.20
		50	25	21.16	21.04	21.10	22.20
		50	50	21.01	20.94	20.99	22.20
		100	0	**21.14**	20.97	21.08	22.20
	16QAM	1	0	21.58	21.51	21.36	22.20
		1	50	21.46	21.36	21.31	22.20
		1	99	21.22	21.29	21.36	22.20
		50	0	21.21	21.01	21.14	22.20
		50	25	21.19	21.05	21.11	22.20
		50	50	21.00	20.95	20.95	22.20
		100	0	21.09	20.95	21.05	22.20
	64QAM	1	0	21.32	21.22	21.27	22.20
		1	50	21.21	21.09	21.26	22.20
		1	99	21.07	21.04	21.20	22.20
		50	0	20.74	20.53	20.67	21.70
		50	25	20.71	20.54	20.65	21.70
		50	50	20.54	20.47	20.49	21.70
		100	0	20.65	20.51	20.58	21.70

LTE Band 71							
Normal power & Receiver on & Receiver off & Hotspot on--Main Ant0				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				133147/665.5	133297 /680.5	133447/695.5	
5MHz	QPSK	1	0	23.64	23.68	23.55	24.50
		1	13	23.77	23.64	23.64	24.50
		1	24	23.71	23.54	23.56	24.50
		12	0	22.67	22.72	22.69	23.50
		12	6	22.69	22.65	22.69	23.50
		12	13	22.80	22.70	22.65	23.50
		25	0	22.71	22.71	22.68	23.50
	16QAM	1	0	23.14	23.08	23.28	23.50
		1	13	23.17	23.11	23.27	23.50
		1	24	23.16	23.13	23.25	23.50
		12	0	21.87	21.80	21.98	22.50
		12	6	21.87	21.78	21.99	22.50
		12	13	21.89	21.84	22.02	22.50
		25	0	21.88	21.82	22.01	22.50
	64QAM	1	0	21.96	21.90	22.08	22.50
		1	13	21.97	21.93	22.05	22.50
		1	24	21.87	21.80	21.92	22.50
		12	0	20.93	20.86	21.05	21.50

		12	6	20.74	20.65	20.84	21.50
		12	13	20.72	20.67	20.85	21.50
		25	0	20.81	20.75	20.94	21.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				133172/668	133297 /680.5	133422/693	
10MHz	QPSK	1	0	23.66	23.69	23.58	24.50
		1	25	23.80	23.69	23.68	24.50
		1	49	23.73	23.58	23.59	24.50
		25	0	22.70	22.77	22.73	23.50
		25	13	22.72	22.70	22.73	23.50
		25	25	22.82	22.74	22.70	23.50
		50	0	22.75	22.73	22.72	23.50
	16QAM	1	0	23.18	23.11	23.30	23.50
		1	25	23.21	23.15	23.30	23.50
		1	49	23.19	23.15	23.28	23.50
		25	0	21.90	21.85	22.02	22.50
		25	13	21.89	21.82	22.02	22.50
		25	25	21.92	21.89	22.06	22.50
		50	0	21.91	21.87	22.05	22.50
	64QAM	1	0	21.98	21.89	22.10	22.50
		1	13	22.00	21.93	22.08	22.50
		1	24	21.86	21.82	21.95	22.50
		12	0	20.96	20.91	21.05	21.50
		12	6	20.76	20.69	20.87	21.50
		12	13	20.75	20.72	20.89	21.50
		25	0	20.84	20.80	20.98	21.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				133197/670.5	133297 /680.5	133397/690.5	
15MHz	QPSK	1	0	23.65	23.65	23.56	24.50
		1	38	23.78	23.68	23.65	24.50
		1	74	23.70	23.53	23.55	24.50
		36	0	22.68	22.73	22.70	23.50
		36	18	22.69	22.65	22.69	23.50
		36	39	22.79	22.71	22.66	23.50
		75	0	22.73	22.69	22.67	23.50
	16QAM	1	0	23.16	23.09	23.28	23.50
		1	38	23.19	23.12	23.28	23.50
		1	74	23.17	23.11	23.25	23.50
		36	0	21.87	21.83	21.99	22.50
		36	18	21.86	21.77	21.98	22.50
		36	39	21.90	21.85	22.03	22.50

		75	0	21.88	21.82	22.01	22.50
	64QAM	1	0	21.93	21.87	22.08	22.50
		1	13	21.98	21.90	22.06	22.50
		1	24	21.87	21.81	21.96	22.50
		12	0	20.95	20.93	21.06	21.50
		12	6	20.74	20.66	20.86	21.50
		12	13	20.73	20.68	20.86	21.50
		25	0	20.81	20.75	20.94	21.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				133222/673	133322/683	133372/688	
20MHz	QPSK	1	0	23.62	23.61	23.53	24.50
		1	50	**23.77**	**23.64**	**23.63**	24.50
		1	99	23.68	23.52	23.52	24.50
		50	0	22.65	**22.68**	**22.66**	23.50
		50	25	22.67	22.61	**22.66**	23.50
		50	50	**22.76**	22.66	22.62	23.50
		100	0	**22.70**	22.64	22.63	23.50
	16QAM	1	0	23.13	23.05	23.23	23.50
		1	50	23.16	23.10	23.24	23.50
		1	99	23.14	23.08	23.23	23.50
		50	0	21.84	21.79	21.96	22.50
		50	25	21.83	21.75	21.95	22.50
		50	50	21.87	21.80	21.99	22.50
		100	0	21.86	21.78	21.98	22.50
	64QAM	1	0	21.91	21.83	22.03	22.50
		1	13	21.94	21.88	22.02	22.50
		1	24	21.81	21.75	21.90	22.50
		12	0	20.90	20.85	20.99	21.50
		12	6	20.70	20.62	20.80	21.50
		12	13	20.70	20.63	20.82	21.50
		25	0	20.79	20.71	20.91	21.50

CA Band

DL Intra Band Contiguous Measured Results													
CA configuration	CC1 UL					CC2 DL			Aggregated BW	MPR	CA Active (dBm)	CA Inactive (dBm)	Delta
	Modle	BW(MHz)	Channel	Fre(MHz)	RB,Offset	BW(MHz)	Channel	Fre(MHz)					
CA_2C	QPSK	20	18801	1870.1	1,50	20	999	1969.9	40	0	23.66	23.74	-0.08
CA_5B	QPSK	10	20476	831.6	1,25	5	2574	886.4	15	0	23.28	23.28	0.00
CA_41C	QPSK	20	40521	2583.1	1,50	20	40719	2602.9	40	0	22.30	22.32	-0.02
CA_66B	QPSK	15	132273	1740.1	1,50	5	66835	2149.9	20	0	23.33	23.38	-0.05
CA_66C	QPSK	20	132223	1735.1	1,50	20	66885	2154.9	40	0	23.33	23.38	-0.05

DL Intra Band Non-Contiguous Measured Results													
CA configuration	CC1 UL					CC2 DL			Aggregated BW	MPR	CA Inactive (dBm)	CA Active (dBm)	Delta
	Modle	BW(MHz)	Channel	Fre(MHz)	RB,Offset	BW(MHz)	Channel	Fre(MHz)					
CA_2A-2A	QPSK	20	18700	1860	1,50	20	1100	1980	40	0	23.74	23.74	0.00
CA_4A-4A	QPSK	20	20050	1720	1,50	20	2300	2145	40	0	23.10	23.18	-0.08
CA_5A-5A	QPSK	10	20450	829	1,50	10	2600	889	20	0	23.26	23.28	-0.02
CA_25A-25A	QPSK	20	26140	1860	1,50	20	8590	1985	40	0	23.57	23.57	0.00
CA_41A-41A	QPSK	20	39750	2506	1,50	20	41490	2680	40	0	22.30	22.32	-0.02
CA_66A-66A	QPSK	20	132072	1720	1,50	20	67035	2169.9	40	0	23.30	23.38	-0.08

DL Inter Band(2 Bands)Measured Results													
CA configuration	CC1 UL					CC2 DL			Aggregated BW	MPR	CA Inactive (dBm)	CA Active (dBm)	Delta
	Modle	BW(MHz)	Channel	Fre(MHz)	RB,Offset	BW(MHz)	Channel	Fre(MHz)					
CA_2A-4A	QPSK	20	18900	1880	1,0	20	2175	2132.5	40	0	23.60	23.74	-0.14
CA_2A-5A	QPSK	20	18900	1880	1,0	10	2600	889	30	0	23.57	23.74	-0.17
CA_2A-12A	QPSK	20	18900	1880	1,0	10	5095	737.5	30	0	23.62	23.74	-0.12
CA_2A-13A	QPSK	20	18900	1880	1,0	10	5230	751	30	0	23.74	23.74	0.00
CA_2A-66A	QPSK	20	18900	1880	1,0	20	66786	2145	40	0	23.62	23.74	-0.12
CA_2A-71A	QPSK	20	18900	1880	1,0	20	68786	637	40	0	23.70	23.74	-0.04
CA_4A-5A	QPSK	20	20175	1732.5	1,0	10	2525	881.5	30	0	23.18	23.18	0.00
CA_4A-12A	QPSK	20	20175	1732.5	1,0	10	5095	737.5	30	0	23.15	23.18	-0.03
CA_4A-13A	QPSK	20	20175	1732.5	1,0	10	5230	751	30	0	23.12	23.18	-0.06
CA_4A-71A	QPSK	20	20175	1732.5	1,0	20	68786	637	40	0	23.18	23.18	0.00
CA_5A-66A	QPSK	10	20525	836.5	1,0	20	66786	2145	30	0	23.28	23.28	0.00
CA_5A-41A	QPSK	10	20525	836.5	1,0	20	40620	2593	30	0	23.19	23.28	-0.09
CA_12A-66A	QPSK	10	23095	707.5	1,0	20	66786	2145	30	0	23.60	23.62	-0.02
CA_13A-66A	QPSK	10	23230	782	1,0	20	66786	2145	30	0	23.55	23.60	-0.05
CA_25A-66A	QPSK	20	26365	1882.5	1,0	20	66786	2145	40	0	23.43	23.57	-0.14
CA_25A-41A	QPSK	20	26365	1882.5	1,0	20	40620	2593	40	0	23.52	23.57	-0.05
CA_41A-48A	QPSK	20	40620	2593	1,0	20	56490	3675	40	0	22.28	22.32	-0.04
CA_66A-71A	QPSK	20	132322	1745	1,0	20	68786	637	40	0	23.31	23.38	-0.07

9.4 NR Mode

The following tests were conducted according to the test requirements outlined in section 6.2 of the 3GPP TS 138.521-1 specification.
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 TS138.521-1.

Table 6.2.2.3-1: Maximum Power Reduction (MPR) for Power 3

Modulation	MPR (dB)		
	Edge RB allocations	Outer RB allocations	Inner RB allocations
DFT-s-OFDM PI/2 BPSK	≤ 3.5[1]	≤ 1.2[1]	≤ 0.2[1]
	≤ 0.5[2]		0[2]
DFT-s-OFDM QPSK	≤ 1		0
DFT-s-OFDM 16 QAM	≤ 2		≤ 1
DFT-s-OFDM 64 QAM	≤ 2.5		
DFT-s-OFDM 256 QAM	≤ 4.5		
CP-OFDM QPSK	≤ 3		≤ 1.5
CP-OFDM 16 QAM	≤ 3		≤ 2
CP-OFDM 64 QAM	≤ 3.5		
CP-OFDM 256 QAM	≤ 6.5		

NOTE 1: Applicable for UE operating in TDD mode with PI/2 BPSK modulation and UE indicates support for UE capability *powerBoosting-pi2BPSK* and if the IE *powerBoostPi2BPSK* is set to 1 and 40 % or less slots in radio frame are used for UL transmission for bands n40, n41, n77, n78 and n79. The reference power of 0dB MPR is 26dBm.
NOTE 2: Applicable for UE operating in FDD mode, or in TDD mode in bands other than n40, n41, n77, n78 and n79 and if the IE *powerBoostPi2BPSK* is set to 0 and if more than 40% of slots in radio frame are used for UL transmission for bands n40, n41, n77, n78 and n79.

The allowed A-MPR values specified below in Table 6.2.3.3.1-1 of 3GPP TS138.521-1 are in addition to the allowed MPR requirements. All the measurements below were performed with A-MPR disabled, by using Network Signaling Value of “NS_ 01”

Table 6.2.3.3.1-1: Additional maximum power reduction (A-MPR)

Network Signalling label	Requirements (subclause)	NR Band	Channel bandwidth (MHz)	Resources Blocks (N_{RB})	A-MPR (dB)
NS_01		Table 5.2-1	5, 10, 15, 20, 25, 30, 40, 50, 60, 80, 90, 100	Table 5.3.2-1	N/A

NR Band n41 SA and NSA

n41 PC2-SET_1（Head）				
Max power	Duty cycle	TX power	Calculation -10*log (Duty cycle	Time Average Power (dBm)
26	1%-10%	29.5	-10	19.5
26	11%-20%	26.5	-7.0	19.5
26	21%-30%	24.5	-5.2	19.3
26	31%-40%	23.5	-4.0	19.5
26	41%-50%	22.5	-3.0	19.5
26	51%-60%	21.5	-2.2	19.3
26	61%-70%	21	-1.5	19.5
26	71%-80%	20.5	-1.0	19.5
26	81%-90%	20	-0.5	19.5
26	91%-100%	20	0.0	20.0

n41 PC2-SET_2（Body 10mm）				
Max power	Duty cycle	TX power	Calculation -10*log (Duty cycle)	Time Average Power (dBm)
26	1%-10%	27.5	-10	17.5
26	11%-20%	24.5	-7.0	17.5
26	21%-30%	22.5	-5.2	17.3
26	31%-40%	21.5	-4.0	17.5
26	41%-50%	20.5	-3.0	17.5
26	51%-60%	19.5	-2.2	17.3
26	61%-70%	19	-1.5	17.5
26	71%-80%	18.5	-1.0	17.5
26	81%-90%	18	-0.5	17.5
26	91%-100%	18	0.0	18.0

n41 PC2-SET_3（Body 15mm/0mm）				
Max power	Duty cycle	TX power	Calculation -10*log (Duty cycle	Time Average Power (dBm)
26	1%-10%	26	-10	16
26	11%-20%	26	-7.0	19
26	21%-30%	24	-5.2	18.8
26	31%-40%	23	-4.0	19
26	41%-50%	22	-3.0	19
26	51%-60%	21	-2.2	18.8

26	61%-70%	20.5	-1.5	19
26	71%-80%	20	-1.0	19
26	81%-90%	19.5	-0.5	19
26	91%-100%	19.5	0.0	19.5

NR Band n77 NSA

n77 PC2-SET_1（Head）				
Max power	Duty cycle	TX power	Calculation -10*log (Duty cycle	Time Average Power (dBm)
26	1%-10%	26	-10	16
26	11%-20%	23.5	-7.0	16.5
26	21%-30%	21.5	-5.2	16.3
26	31%-40%	20.5	-4.0	16.5
26	41%-50%	19.5	-3.0	16.5
26	51%-60%	18.5	-2.2	16.3
26	61%-70%	18	-1.5	16.5
26	71%-80%	17.5	-1.0	16.5
26	81%-90%	17	-0.5	16.5
26	91%-100%	17	0.0	17.0

n77 PC2-SET_3（Body 15mm/0mm）				
Max power	Duty cycle	TX power	Calculation -10*log (Duty cycle	Time Average Power (dBm)
26	1%-10%	27.5	-10	17.5
26	11%-20%	24.5	-7.0	17.5
26	21%-30%	22.5	-5.2	17.3
26	31%-40%	21.5	-4.0	17.5
26	41%-50%	20.5	-3.0	17.5
26	51%-60%	19.5	-2.2	17.3
26	61%-70%	19	-1.5	17.5
26	71%-80%	18.5	-1.0	17.5
26	81%-90%	18	-0.5	17.5
26	91%-100%	18	0.0	18.0

n77 PC2-SET_2（Body 10mm）				
Max power	Duty cycle	TX power	Calculation -10*log (Duty cycle	Time Average Power (dBm)
26	1%-10%	26	-10	16

26	11%-20%	24	-7.0	17
26	21%-30%	22.2	-5.2	17
26	31%-40%	21	-4.0	17
26	41%-50%	20	-3.0	17
26	51%-60%	19.2	-2.2	17
26	61%-70%	18.5	-1.5	17
26	71%-80%	18	-1.0	17
26	81%-90%	17.5	-0.5	17
26	91%-100%	17.5	0.0	17.5

EN-DC Antenna Configuration

EN-DC Configurations	E-UTRA Band	NR Band	Antenna Configurations				
			Mode	1	2	3	4
DC_2A-n2A	LTE Band2	NR n2	LTE	ANT1	/	/	/
			NR	ANT2	/	/	/
DC_5A-n2A	LTE Band5		LTE	ANT0	/	/	/
			NR	ANT2	/	/	/
DC_12A-n2A	LTE Band12		LTE	ANT0	/	/	/
			NR	ANT2	/	/	/
DC_13A-n2A	LTE Band13		LTE	ANT0	/	/	/
			NR	ANT2	/	/	/
DC_66A-n2A	LTE Band66		LTE	ANT1	/	/	/
			NR	ANT2	/	/	/
DC_2A-n5A	LTE Band2	NR n5	LTE	ANT1	/	/	/
			NR	ANT0	/	/	/
DC_66A-n5A	LTE Band66		LTE	ANT1	/	/	/
			NR	ANT0	/	/	/
DC_2A-n25A	LTE Band2	NR n25	LTE	ANT1	/	/	/
			NR	ANT2	/	/	/
DC_12A-n25A	LTE Band12		LTE	ANT0	/	/	/
			NR	ANT2	/	/	/
DC_66A-n25A	LTE Band66		LTE	ANT1	/	/	/
			NR	ANT2	/	/	/
DC_2A-n30A	LTE Band2	NR n30	LTE	ANT1	/	/	/
			NR	ANT4	/	/	/
DC_5A-n30A	LTE Band5		LTE	ANT0	/	/	/
			NR	ANT4	/	/	/
DC_12A-n30A	LTE Band12		LTE	ANT0	/	/	/
			NR	ANT4	/	/	/
DC_66A-n30A	LTE Band66		LTE	ANT1	/	/	/
			NR	ANT4	/	/	/
DC_2A-n41A	LTE Band2	NR n41	LTE	ANT1	/	/	/
			NR	ANT4	/	/	/
DC_66A-n41A	LTE Band66		LTE	ANT1	/	/	/
			NR	ANT4	/	/	/
DC_2A-n66A	LTE Band2	NR n66	LTE	ANT1	/	/	/
			NR	ANT2	/	/	/
DC_5A-n66A	LTE Band5		LTE	ANT0	/	/	/
			NR	ANT2	/	/	/
DC_12A-n66A	LTE Band12		LTE	ANT0	/	/	/
			NR	ANT2	/	/	/
DC_13A-n66A	LTE Band13		LTE	ANT0	/	/	/
			NR	ANT2	/	/	/

DC_66A-n66A	LTE Band66		LTE	ANT1	/	/	/
			NR	ANT2	/	/	/
DC_2A-n71A	LTE Band2	NR n71	LTE	ANT1	/	/	/
			NR	ANT0	/	/	/
DC_66A-n71A	LTE Band66		LTE	ANT1	/	/	/
			NR	ANT0	/	/	/
DC_2A-n77A	LTE Band2	NR n77	LTE	ANT1	/	/	/
			NR	ANT2	/	/	/
DC_5A-n77A	LTE Band5		LTE	ANT0	/	/	/
			NR	ANT2	/	/	/
DC_12A-n77A	LTE Band12		LTE	ANT0	/	/	/
			NR	ANT2	/	/	/
DC_13A-n77A	LTE Band13		LTE	ANT0	/	/	/
			NR	ANT2	/	/	/
DC_66A-n77A	LTE Band66		LTE	ANT1	/	/	/
			NR	ANT2	/	/	/
Note: The EN-DC mode maximum power for LTE are same as LTE standalone mode, so this section only list 5G NR conducted power.							

9.2.1 EN-DC (LTE)

LTE Band 2							
Normal power & Receiver on-Div Ant1				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				18607/1850.7	18900/1880	19193/1909.3	
1.4MHz	QPSK	1	0	22.53	22.65	22.37	23.30
		1	2	22.75	22.66	22.50	23.30
		1	5	22.57	22.50	22.56	23.30
		3	0	22.65	22.47	22.45	23.30
		3	2	22.58	22.58	22.43	23.30
		3	3	22.56	22.48	22.35	23.30
		6	0	21.67	21.55	21.50	22.30
	16QAM	1	0	21.53	21.65	21.47	22.30
		1	2	21.65	21.72	21.56	22.30
		1	5	21.47	21.57	21.60	22.30
		3	0	21.53	21.40	21.33	22.30
		3	2	21.47	21.50	21.44	22.30
		3	3	21.43	21.47	21.30	22.30
		6	0	20.57	20.54	20.48	21.30
	64QAM	1	0	20.45	20.56	20.41	21.30
		1	2	20.63	20.67	20.54	21.30
		1	5	20.43	20.54	20.48	21.30
		3	0	20.49	20.39	20.38	21.30
		3	2	20.48	20.45	20.36	21.30

		3	3	20.42	20.37	20.28	21.30
		6	0	19.54	19.50	19.45	20.30
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				18615/1851.5	18900/1880	19185/1908.5	
3MHz	QPSK	1	0	22.55	22.69	22.40	23.30
		1	7	22.73	22.69	22.54	23.30
		1	14	22.60	22.55	22.60	23.30
		8	0	21.75	21.59	21.58	22.30
		8	4	21.70	21.68	21.55	22.30
		8	7	21.66	21.59	21.45	22.30
		15	0	21.67	21.59	21.53	22.30
	16QAM	1	0	21.53	21.67	21.50	22.30
		1	7	21.65	21.72	21.60	22.30
		1	14	21.49	21.61	21.63	22.30
		8	0	20.64	20.53	20.45	21.30
		8	4	20.58	20.63	20.56	21.30
		8	7	20.53	20.59	20.43	21.30
		15	0	20.60	20.58	20.51	21.30
	64QAM	1	0	20.48	20.58	20.44	21.30
		1	7	20.66	20.67	20.56	21.30
		1	14	20.45	20.53	20.51	21.30
		8	0	19.60	19.48	19.50	20.30
		8	4	19.59	19.58	19.48	20.30
		8	7	19.52	19.49	19.41	20.30
		15	0	19.57	19.54	19.48	20.30
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				18625/1852.5	18900/1880	19175/1907.5	
5MHz	QPSK	1	0	22.52	22.67	22.36	23.30
		1	13	22.71	22.65	22.51	23.30
		1	24	22.57	22.50	22.56	23.30
		12	0	21.72	21.54	21.54	22.30
		12	6	21.68	21.64	21.50	22.30
		12	13	21.64	21.57	21.41	22.30
		25	0	21.67	21.58	21.51	22.30
	16QAM	1	0	21.53	21.63	21.47	22.30
		1	13	21.65	21.70	21.57	22.30
		1	24	21.46	21.59	21.59	22.30
		12	0	20.62	20.49	20.42	21.30
		12	6	20.55	20.58	20.52	21.30
		12	13	20.50	20.54	20.39	21.30
		25	0	20.58	20.54	20.46	21.30
	64QAM	1	0	20.45	20.58	20.41	21.30
		1	13	20.63	20.69	20.53	21.30

		1	24	20.46	20.51	20.47	21.30
		12	0	19.58	19.55	19.51	20.30
		12	6	19.56	19.53	19.44	20.30
		12	13	19.49	19.44	19.37	20.30
		25	0	19.55	19.50	19.43	20.30
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				18650/1855	18900/1880	19150/1905	
10MHz	QPSK	1	0	22.54	22.68	22.39	23.30
		1	25	22.74	22.70	22.55	23.30
		1	49	22.59	22.54	22.59	23.30
		25	0	21.75	21.59	21.58	22.30
		25	13	21.71	21.69	21.54	22.30
		25	25	21.66	21.61	21.46	22.30
		50	0	21.71	21.60	21.55	22.30
	16QAM	1	0	21.57	21.66	21.49	22.30
		1	25	21.69	21.74	21.60	22.30
		1	49	21.49	21.61	21.62	22.30
		25	0	20.65	20.54	20.46	21.30
		25	13	20.57	20.62	20.55	21.30
		25	25	20.53	20.59	20.43	21.30
		50	0	20.61	20.59	20.50	21.30
	64QAM	1	0	20.47	20.57	20.43	21.30
		1	25	20.66	20.69	20.56	21.30
		1	49	20.45	20.53	20.50	21.30
		25	0	19.61	19.62	19.51	20.30
		25	13	19.58	19.57	19.47	20.30
		25	25	19.52	19.49	19.41	20.30
		50	0	19.58	19.55	19.47	20.30
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				18675/1857.5	18900/1880	19125/1902.5	
15MHz	QPSK	1	0	22.53	22.64	22.37	23.30
		1	38	22.72	22.69	22.52	23.30
		1	74	22.56	22.49	22.55	23.30
		36	0	21.73	21.55	21.55	22.30
		36	18	21.68	21.64	21.50	22.30
		36	39	21.63	21.58	21.42	22.30
		75	0	21.69	21.56	21.50	22.30
	16QAM	1	0	21.55	21.64	21.47	22.30
		1	38	21.67	21.71	21.58	22.30
		1	74	21.47	21.57	21.59	22.30
		36	0	20.62	20.52	20.43	21.30
		36	18	20.54	20.57	20.51	21.30
		36	39	20.51	20.55	20.40	21.30

		75	0	20.58	20.54	20.46	21.30
	64QAM	1	0	20.42	20.55	20.41	21.30
		1	38	20.64	20.66	20.54	21.30
		1	74	20.46	20.52	20.51	21.30
		36	0	19.60	19.50	19.52	20.30
		36	18	19.56	19.54	19.46	20.30
		36	39	19.50	19.45	19.38	20.30
		75	0	19.55	19.50	19.43	20.30
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				18700/1860	18900/1880	19100/1900	
	QPSK	1	0	22.50	22.60	22.34	23.30
		1	50	**22.71**	**22.65**	22.50	23.30
		1	99	22.54	22.48	**22.52**	23.30
		50	0	**21.70**	21.50	**21.51**	22.30
		50	25	21.66	**21.60**	21.47	22.30
		50	50	21.60	21.53	21.38	22.30
		100	0	**21.66**	21.51	21.46	22.30
	16QAM	1	0	21.52	21.60	21.42	22.30
		1	50	21.64	21.69	21.54	22.30
		1	99	21.44	21.54	21.57	22.30
		50	0	20.59	20.48	20.40	21.30
		50	25	20.51	20.55	20.48	21.30
		50	50	20.48	20.50	20.36	21.30
		100	0	20.56	20.50	20.43	21.30
	64QAM	1	0	20.40	20.51	20.36	21.30
		1	50	20.60	20.64	20.50	21.30
		1	99	20.40	20.46	20.45	21.30
		50	0	19.55	19.47	19.45	20.30
		50	25	19.52	19.50	19.40	20.30
		50	50	19.47	19.40	19.34	20.30
		100	0	19.53	19.46	19.40	20.30

LTE Band 2							
Receiver off-Div Ant1				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				18607/1850.7	18900/1880	19193/1909.3	
1.4MHz	QPSK	1	0	18.50	18.58	18.39	19.50
		1	2	18.65	18.56	18.61	19.50
		1	5	18.55	18.43	18.36	19.50
		3	0	18.58	18.51	18.65	19.50
		3	2	18.59	18.54	18.62	19.50
		3	3	18.66	18.45	18.23	19.50
		6	0	18.58	18.52	18.51	19.50

	16QAM	1	0	18.69	18.54	18.62	19.50
		1	2	18.72	18.63	18.68	19.50
		1	5	18.67	18.51	18.52	19.50
		3	0	18.67	18.48	18.54	19.50
		3	2	18.75	18.55	18.60	19.50
		3	3	18.68	18.52	18.55	19.50
		6	0	18.63	18.53	18.51	19.50
	64QAM	1	0	18.70	18.55	18.55	19.50
		1	2	18.74	18.65	18.65	19.50
		1	5	18.62	18.45	18.45	19.50
		3	0	18.65	18.48	18.58	19.50
		3	2	18.77	18.54	18.62	19.50
		3	3	18.67	18.52	18.54	19.50
		6	0	18.64	18.50	18.51	19.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				18615/1851.5	18900/1880	19185/1908.5	
3MHz	QPSK	1	0	18.49	18.54	18.37	19.50
		1	7	18.63	18.55	18.58	19.50
		1	14	18.52	18.38	18.32	19.50
		8	0	18.56	18.47	18.62	19.50
		8	4	18.56	18.49	18.58	19.50
		8	7	18.63	18.42	18.19	19.50
		15	0	18.56	18.48	18.46	19.50
	16QAM	1	0	18.67	18.52	18.60	19.50
		1	7	18.70	18.60	18.66	19.50
		1	14	18.65	18.47	18.49	19.50
		8	0	18.64	18.46	18.51	19.50
		8	4	18.72	18.50	18.56	19.50
		8	7	18.66	18.48	18.52	19.50
		15	0	18.60	18.48	18.47	19.50
	64QAM	1	0	18.65	18.53	18.53	19.50
		1	7	18.72	18.62	18.63	19.50
		1	14	18.63	18.44	18.46	19.50
		8	0	18.64	18.50	18.59	19.50
		8	4	18.75	18.51	18.61	19.50
		8	7	18.65	18.48	18.51	19.50
		15	0	18.61	18.45	18.47	19.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				18625/1852.5	18900/1880	19175/1907.5	
5MHz	QPSK	1	0	18.46	18.50	18.34	19.50
		1	13	18.62	18.51	18.56	19.50
		1	24	18.50	18.37	18.29	19.50
		12	0	18.53	18.42	18.58	19.50

		12	6	18.54	18.45	18.55	19.50
		12	13	18.60	18.37	18.15	19.50
		25	0	18.53	18.43	18.42	19.50
	16QAM	1	0	18.64	18.48	18.55	19.50
		1	13	18.67	18.58	18.62	19.50
		1	24	18.62	18.44	18.47	19.50
		12	0	18.61	18.42	18.48	19.50
		12	6	18.69	18.48	18.53	19.50
		12	13	18.63	18.43	18.48	19.50
		25	0	18.58	18.44	18.44	19.50
	64QAM	1	0	18.63	18.49	18.48	19.50
		1	13	18.68	18.60	18.59	19.50
		1	24	18.57	18.38	18.40	19.50
		12	0	18.59	18.42	18.52	19.50
		12	6	18.71	18.47	18.55	19.50
		12	13	18.62	18.43	18.47	19.50
		25	0	18.59	18.41	18.44	19.50

Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				18650/1855	18900/1880	19150/1905	
10MHz	QPSK	1	0	18.48	18.51	18.37	19.50
		1	25	18.65	18.56	18.60	19.50
		1	49	18.52	18.41	18.32	19.50
		25	0	18.56	18.47	18.62	19.50
		25	13	18.57	18.50	18.59	19.50
		25	25	18.62	18.41	18.20	19.50
		50	0	18.57	18.45	18.46	19.50
	16QAM	1	0	18.68	18.51	18.57	19.50
		1	25	18.71	18.62	18.65	19.50
		1	49	18.65	18.46	18.50	19.50
		25	0	18.64	18.47	18.52	19.50
		25	13	18.71	18.52	18.56	19.50
		25	25	18.66	18.48	18.52	19.50
		50	0	18.61	18.49	18.48	19.50
	64QAM	1	0	18.65	18.48	18.50	19.50
		1	25	18.71	18.60	18.62	19.50
		1	49	18.56	18.40	18.43	19.50
		25	0	18.62	18.47	18.52	19.50
		25	13	18.73	18.51	18.58	19.50
		25	25	18.65	18.48	18.51	19.50
		50	0	18.62	18.46	18.48	19.50

Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				18675/1857.5	18900/1880	19125/1902.5	
15MHz	QPSK	1	0	18.47	18.47	18.35	19.50
		1	38	18.63	18.55	18.57	19.50
		1	74	18.49	18.36	18.28	19.50
		36	0	18.54	18.43	18.59	19.50
		36	18	18.54	18.45	18.55	19.50
		36	39	18.59	18.38	18.16	19.50
		75	0	18.55	18.41	18.41	19.50
	16QAM	1	0	18.66	18.49	18.55	19.50
		1	38	18.69	18.59	18.63	19.50
		1	74	18.63	18.42	18.47	19.50
		36	0	18.61	18.45	18.49	19.50
		36	18	18.68	18.47	18.52	19.50
		36	39	18.64	18.44	18.49	19.50
		75	0	18.58	18.44	18.44	19.50
	64QAM	1	0	18.60	18.46	18.48	19.50
		1	38	18.69	18.57	18.60	19.50
		1	74	18.57	18.39	18.44	19.50
		36	0	18.61	18.49	18.53	19.50
		36	18	18.71	18.48	18.57	19.50
		36	39	18.63	18.44	18.48	19.50
		75	0	18.59	18.41	18.44	19.50

Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				18700/1860	18900/1880	19100/1900	
20MHz	QPSK	1	0	18.44	18.43	18.32	19.50
		1	50	**18.62**	**18.51**	**18.55**	19.50
		1	99	18.47	18.35	18.25	19.50
		50	0	18.51	18.38	**18.55**	19.50
		50	25	18.52	**18.41**	18.52	19.50
		50	50	**18.56**	18.33	18.12	19.50
		100	0	**18.52**	18.36	18.37	19.50
	16QAM	1	0	18.63	18.45	18.50	19.50
		1	50	18.66	18.57	18.59	19.50
		1	99	18.60	18.39	18.45	19.50
		50	0	18.58	18.41	18.46	19.50
		50	25	18.65	18.45	18.49	19.50
		50	50	18.61	18.39	18.45	19.50
		100	0	18.56	18.40	18.41	19.50
	64QAM	1	0	18.58	18.42	18.43	19.50
		1	50	18.65	18.55	18.56	19.50
		1	99	18.51	18.33	18.38	19.50
		50	0	18.56	18.41	18.46	19.50

		50	25	18.67	18.44	18.51	19.50
		50	50	18.60	18.39	18.44	19.50
		100	0	18.57	18.37	18.41	19.50

LTE Band 2							
Hotspot on-Div Ant1				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				18607/1850.7	18900/1880	19193/1909.3	
1.4MHz	QPSK	1	0	14.58	14.68	14.50	15.50
		1	2	14.72	14.72	14.60	15.50
		1	5	14.58	14.53	14.65	15.50
		3	0	14.75	14.63	14.59	15.50
		3	2	14.69	14.64	14.61	15.50
		3	3	14.68	14.64	14.57	15.50
		6	0	14.70	14.61	14.67	15.50
	16QAM	1	0	14.68	14.80	14.60	15.50
		1	2	14.53	14.56	14.51	15.50
		1	5	14.84	14.96	14.68	15.50
		3	0	14.76	14.84	14.59	15.50
		3	2	14.81	14.85	14.62	15.50
		3	3	14.65	14.80	14.51	15.50
		6	0	14.74	14.83	14.58	15.50
	64QAM	1	0	14.69	14.78	14.53	15.50
		1	2	14.76	14.79	14.63	15.50
		1	5	14.85	14.95	14.65	15.50
		3	0	14.71	14.85	14.65	15.50
		3	2	14.77	14.87	14.61	15.50
		3	3	14.66	14.80	14.52	15.50
		6	0	14.70	14.82	14.56	15.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				18615/1851.5	18900/1880	19185/1908.5	
3MHz	QPSK	1	0	14.55	14.64	14.47	15.50
		1	7	14.71	14.68	14.58	15.50
		1	14	14.56	14.52	14.62	15.50
		8	0	14.72	14.58	14.55	15.50
		8	4	14.67	14.60	14.58	15.50
		8	7	14.65	14.59	14.53	15.50
		15	0	14.67	14.56	14.63	15.50
	16QAM	1	0	14.65	14.76	14.55	15.50
		1	7	14.50	14.54	14.47	15.50
		1	14	14.81	14.93	14.66	15.50
		8	0	14.73	14.80	14.56	15.50
		8	4	14.78	14.83	14.59	15.50

		8	7	14.62	14.75	14.47	15.50
		15	0	14.72	14.79	14.55	15.50
	64QAM	1	0	14.67	14.74	14.48	15.50
		1	7	14.72	14.77	14.59	15.50
		1	14	14.79	14.89	14.59	15.50
		8	0	14.66	14.77	14.58	15.50
		8	4	14.73	14.83	14.55	15.50
		8	7	14.63	14.75	14.48	15.50
		15	0	14.68	14.78	14.53	15.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				18625/1852.5	18900/1880	19175/1907.5	
5MHz	QPSK	1	0	14.60	14.73	14.53	15.50
		1	13	14.73	14.72	14.62	15.50
		1	24	14.62	14.59	14.70	15.50
		12	0	14.77	14.67	14.62	15.50
		12	6	14.71	14.68	14.66	15.50
		12	13	14.71	14.65	14.60	15.50
		25	0	14.68	14.64	14.70	15.50
	16QAM	1	0	14.66	14.83	14.63	15.50
		1	13	14.51	14.57	14.53	15.50
		1	24	14.86	15.00	14.72	15.50
		12	0	14.78	14.85	14.61	15.50
		12	6	14.85	14.91	14.67	15.50
		12	13	14.67	14.84	14.54	15.50
		25	0	14.76	14.87	14.63	15.50
	64QAM	1	0	14.75	14.81	14.56	15.50
		1	13	14.78	14.80	14.65	15.50
		1	24	14.84	14.96	14.65	15.50
		12	0	14.71	14.82	14.63	15.50
		12	6	14.80	14.91	14.63	15.50
		12	13	14.68	14.84	14.55	15.50
		25	0	14.72	14.86	14.61	15.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				18650/1855	18900/1880	19150/1905	
10MHz	QPSK	1	0	14.57	14.65	14.50	15.50
		1	25	14.74	14.73	14.62	15.50
		1	49	14.58	14.56	14.65	15.50
		25	0	14.75	14.63	14.59	15.50
		25	13	14.70	14.65	14.62	15.50
		25	25	14.67	14.63	14.58	15.50
		50	0	14.71	14.58	14.67	15.50
	16QAM	1	0	14.69	14.79	14.57	15.50
		1	25	14.54	14.58	14.50	15.50

		1	49	14.84	14.95	14.69	15.50
		25	0	14.76	14.85	14.60	15.50
		25	13	14.80	14.87	14.62	15.50
		25	25	14.65	14.80	14.51	15.50
		50	0	14.75	14.84	14.59	15.50
	64QAM	1	0	14.69	14.73	14.50	15.50
		1	25	14.75	14.77	14.62	15.50
		1	49	14.78	14.91	14.62	15.50
		25	0	14.69	14.82	14.58	15.50
		25	13	14.75	14.87	14.58	15.50
		25	25	14.66	14.80	14.52	15.50
		50	0	14.71	14.83	14.57	15.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				18675/1857.5	18900/1880	19125/1902.5	
15MHz	QPSK	1	0	14.63	14.77	14.56	15.50
		1	38	14.74	14.76	14.64	15.50
		1	74	14.64	14.60	14.73	15.50
		36	0	14.80	14.72	14.66	15.50
		36	18	14.73	14.72	14.69	15.50
		36	39	14.74	14.70	14.64	15.50
		75	0	14.71	14.69	14.74	15.50
	16QAM	1	0	14.69	14.87	14.68	15.50
		1	38	14.54	14.59	14.57	15.50
		1	74	14.89	15.03	14.74	15.50
		36	0	14.81	14.89	14.64	15.50
		36	18	14.88	14.93	14.70	15.50
		36	39	14.70	14.89	14.58	15.50
		75	0	14.78	14.91	14.66	15.50
	64QAM	1	0	14.77	14.85	14.61	15.50
		1	38	14.82	14.82	14.69	15.50
		1	74	14.90	15.02	14.71	15.50
		36	0	14.76	14.90	14.70	15.50
		36	18	14.84	14.95	14.69	15.50
		36	39	14.71	14.89	14.59	15.50
		75	0	14.74	14.90	14.64	15.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				18700/1860	18900/1880	19100/1900	
20MHz	QPSK	1	0	14.53	14.57	14.45	15.50
		1	50	**14.71**	**14.68**	14.57	15.50
		1	99	14.53	14.50	**14.58**	15.50
		50	0	**14.70**	14.54	14.52	15.50
		50	25	14.65	**14.56**	**14.55**	15.50
		50	50	14.61	14.55	14.50	15.50

		100	0	**14.66**	14.49	14.58	15.50
	16QAM	1	0	14.64	14.73	14.50	15.50
		1	50	14.49	14.53	14.44	15.50
		1	99	14.79	14.88	14.64	15.50
		50	0	14.70	14.79	14.54	15.50
		50	25	14.74	14.80	14.55	15.50
		50	50	14.60	14.71	14.44	15.50
		100	0	14.70	14.75	14.52	15.50
	64QAM	1	0	14.62	14.67	14.43	15.50
		1	50	14.69	14.72	14.56	15.50
		1	99	14.73	14.84	14.57	15.50
		50	0	14.63	14.76	14.52	15.50
		50	25	14.69	14.80	14.51	15.50
		50	50	14.61	14.71	14.45	15.50
		100	0	14.66	14.74	14.50	15.50

LTE Band 5							
Normal power & Receiver off & Hotspot on--Main Ant0				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				20407/824.7	20525/836.5	20643/848.3	
1.4MHz	QPSK	1	0	23.32	23.41	23.38	24.50
		1	2	23.45	23.44	23.33	24.50
		1	5	23.37	23.38	23.37	24.50
		3	0	23.32	23.40	23.34	24.50
		3	2	23.32	23.39	23.34	24.50
		3	3	23.35	23.32	23.23	24.50
		6	0	22.44	22.44	22.40	23.50
	16QAM	1	0	22.52	22.71	22.65	23.50
		1	2	22.62	22.65	22.61	23.50
		1	5	22.62	22.63	22.62	23.50
		3	0	22.33	22.39	22.37	23.50
		3	2	22.37	22.41	22.36	23.50
		3	3	22.39	22.36	22.21	23.50
		6	0	21.42	21.49	21.41	22.50
	64QAM	1	0	21.46	21.54	21.51	22.50
		1	2	21.53	21.61	21.52	22.50
		1	5	21.53	21.60	21.57	22.50
		3	0	21.29	21.35	21.34	22.50
		3	2	21.34	21.37	21.33	22.50
		3	3	21.37	21.35	21.18	22.50
		6	0	20.43	20.47	20.37	21.50

Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				20415/825.5	20525/836.5	20635/847.5	
3MHz	QPSK	1	0	23.33	23.44	23.40	24.50
		1	7	23.44	23.48	23.38	24.50
		1	14	23.39	23.42	23.40	24.50
		8	0	22.42	22.52	22.47	23.50
		8	4	22.45	22.50	22.45	23.50
		8	7	22.45	22.45	22.34	23.50
		15	0	22.48	22.49	22.45	23.50
	16QAM	1	0	22.56	22.72	22.67	23.50
		1	7	22.66	22.67	22.65	23.50
		1	14	22.64	22.67	22.64	23.50
		8	0	21.45	21.53	21.50	22.50
		8	4	21.47	21.53	21.47	22.50
		8	7	21.49	21.48	21.34	22.50
		15	0	21.46	21.54	21.43	22.50
	64QAM	1	0	21.48	21.55	21.53	22.50
		1	7	21.56	21.63	21.54	22.50
		1	14	21.55	21.59	21.59	22.50
		8	0	20.41	20.49	20.47	21.50
		8	4	20.44	20.49	20.44	21.50
		8	7	20.47	20.47	20.31	21.50
		15	0	20.47	20.52	20.39	21.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				20425/826.5	20525/836.5	20625/846.5	
5MHz	QPSK	1	0	23.32	23.40	23.38	24.50
		1	13	23.42	23.47	23.35	24.50
		1	24	23.36	23.37	23.36	24.50
		12	0	22.40	22.48	22.44	23.50
		12	6	22.42	22.45	22.41	23.50
		12	13	22.42	22.42	22.30	23.50
		25	0	22.46	22.45	22.40	23.50
	16QAM	1	0	22.54	22.70	22.65	23.50
		1	13	22.64	22.64	22.63	23.50
		1	24	22.62	22.63	22.61	23.50
		12	0	21.42	21.51	21.47	22.50
		12	6	21.44	21.48	21.43	22.50
		12	13	21.47	21.44	21.31	22.50
		25	0	21.43	21.49	21.39	22.50
	64QAM	1	0	21.43	21.53	21.51	22.50
		1	13	21.54	21.60	21.52	22.50
		1	24	21.56	21.58	21.60	22.50
		12	0	20.40	20.51	20.48	21.50

		12	6	20.42	20.46	20.43	21.50
		12	13	20.45	20.43	20.28	21.50
		25	0	20.44	20.47	20.35	21.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				20450/829	20525/836.5	20600/844	
10MHz	QPSK	1	0	23.29	23.36	**23.35**	24.50
		1	25	**23.41**	**23.43**	23.33	24.50
		1	49	23.34	23.36	23.33	24.50
		25	0	22.37	**22.43**	**22.40**	23.50
		25	13	**22.40**	22.41	22.38	23.50
		25	25	22.39	22.37	22.26	23.50
		50	0	**22.43**	22.40	22.36	23.50
	16QAM	1	0	22.51	22.66	22.60	23.50
		1	25	22.61	22.62	22.59	23.50
		1	49	22.59	22.60	22.59	23.50
		25	0	21.39	21.47	21.44	22.50
		25	13	21.41	21.46	21.40	22.50
		25	25	21.44	21.39	21.27	22.50
		50	0	21.41	21.45	21.36	22.50
	64QAM	1	0	21.41	21.49	21.46	22.50
		1	25	21.50	21.58	21.48	22.50
		1	49	21.50	21.52	21.54	22.50
		25	0	20.35	20.43	20.41	21.50
		25	13	20.38	20.42	20.37	21.50
		25	25	20.42	20.38	20.24	21.50
		50	0	20.42	20.43	20.32	21.50

LTE Band 5							
Receiver on--Main Ant0				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				20407/824.7	20525/836.5	20643/848.3	
1.4MHz	QPSK	1	0	20.42	20.57	20.44	21.50
		1	2	20.44	20.50	20.42	21.50
		1	5	20.39	20.47	20.45	21.50
		3	0	20.43	20.47	20.43	21.50
		3	2	20.43	20.48	20.40	21.50
		3	3	20.42	20.53	20.36	21.50
		6	0	20.46	20.53	20.40	21.50
	16QAM	1	0	20.70	20.59	20.68	21.50
		1	2	20.61	20.53	20.59	21.50
		1	5	20.68	20.55	20.59	21.50
		3	0	20.51	20.40	20.44	21.50
		3	2	20.61	20.45	20.54	21.50

		3	3	20.63	20.53	20.59	21.50
		6	0	20.58	20.49	20.54	21.50
	64QAM	1	0	20.70	20.56	20.65	21.50
		1	2	20.60	20.48	20.54	21.50
		1	5	20.60	20.49	20.54	21.50
		3	0	20.54	20.47	20.51	21.50
		3	2	20.63	20.48	20.58	21.50
		3	3	20.64	20.54	20.60	21.50
		6	0	20.60	20.50	20.55	21.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				20415/825.5	20525/836.5	20635/847.5	
3MHz	QPSK	1	0	20.38	20.49	20.39	21.50
		1	7	20.41	20.45	20.37	21.50
		1	14	20.34	20.41	20.38	21.50
		8	0	20.38	20.38	20.36	21.50
		8	4	20.38	20.39	20.33	21.50
		8	7	20.36	20.45	20.28	21.50
		15	0	20.41	20.44	20.31	21.50
	16QAM	1	0	20.65	20.53	20.61	21.50
		1	7	20.56	20.48	20.53	21.50
		1	14	20.63	20.48	20.54	21.50
		8	0	20.45	20.34	20.38	21.50
		8	4	20.55	20.38	20.47	21.50
		8	7	20.58	20.44	20.52	21.50
		15	0	20.53	20.40	20.47	21.50
	64QAM	1	0	20.63	20.50	20.58	21.50
		1	7	20.54	20.43	20.48	21.50
		1	14	20.55	20.42	20.49	21.50
		8	0	20.48	20.41	20.45	21.50
		8	4	20.57	20.41	20.51	21.50
		8	7	20.59	20.45	20.53	21.50
		15	0	20.55	20.41	20.48	21.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				20425/826.5	20525/836.5	20625/846.5	
5MHz	QPSK	1	0	20.39	20.53	20.41	21.50
		1	13	20.43	20.46	20.40	21.50
		1	24	20.37	20.46	20.42	21.50
		12	0	20.40	20.42	20.39	21.50
		12	6	20.41	20.44	20.37	21.50
		12	13	20.39	20.48	20.32	21.50
		25	0	20.43	20.48	20.36	21.50
	16QAM	1	0	20.67	20.55	20.63	21.50
		1	13	20.58	20.51	20.55	21.50

		1	24	20.65	20.52	20.57	21.50
		12	0	20.48	20.36	20.41	21.50
		12	6	20.58	20.43	20.51	21.50
		12	13	20.60	20.48	20.55	21.50
		25	0	20.56	20.45	20.51	21.50
	64QAM	1	0	20.68	20.52	20.60	21.50
		1	13	20.56	20.46	20.50	21.50
		1	24	20.54	20.43	20.48	21.50
		12	0	20.49	20.39	20.44	21.50
		12	6	20.59	20.44	20.52	21.50
		12	13	20.61	20.49	20.56	21.50
		25	0	20.58	20.46	20.52	21.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				20450/829	20525/836.5	20600/844	
10MHz	QPSK	1	0	20.35	**20.45**	**20.36**	21.50
		1	25	**20.40**	20.41	20.35	21.50
		1	49	20.32	20.40	20.35	21.50
		25	0	20.35	20.33	**20.32**	21.50
		25	13	**20.36**	20.35	20.30	21.50
		25	25	20.33	**20.40**	20.24	21.50
		50	0	20.38	**20.39**	20.27	21.50
	16QAM	1	0	20.62	20.49	20.56	21.50
		1	25	20.53	20.46	20.49	21.50
		1	49	20.60	20.45	20.52	21.50
		25	0	20.42	20.30	20.35	21.50
		25	13	20.52	20.36	20.44	21.50
		25	25	20.55	20.39	20.48	21.50
		50	0	20.51	20.36	20.44	21.50
	64QAM	1	0	20.61	20.46	20.53	21.50
		1	25	20.50	20.41	20.44	21.50
		1	49	20.49	20.36	20.43	21.50
		25	0	20.43	20.33	20.38	21.50
		25	13	20.53	20.37	20.45	21.50
		25	25	20.56	20.40	20.49	21.50
		50	0	20.53	20.37	20.45	21.50

LTE Band 12							
Normal power & Receiver off & Hotspot on--Main Ant0				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				23017/699.7	23095/707.5	23173/715.3	
1.4MHz	QPSK	1	0	23.67	23.74	23.76	24.50
		1	2	23.77	23.68	23.73	24.50

		1	5	23.82	23.70	23.84	24.50
		3	0	23.63	23.58	23.61	24.50
		3	2	23.61	23.68	23.67	24.50
		3	3	23.70	23.73	23.65	24.50
		6	0	22.76	22.78	22.73	23.50
	16QAM	1	0	22.98	22.94	22.96	23.50
		1	2	22.92	22.91	23.01	23.50
		1	5	22.99	22.98	23.03	23.50
		3	0	22.63	22.60	22.63	23.50
		3	2	22.68	22.70	22.71	23.50
		3	3	22.73	22.78	22.64	23.50
		6	0	21.76	21.77	21.76	22.50
	64QAM	1	0	21.98	21.98	21.93	22.50
		1	2	21.87	21.92	21.93	22.50
		1	5	21.92	21.99	22.00	22.50
		3	0	21.75	21.69	21.74	22.50
		3	2	21.80	21.80	21.81	22.50
		3	3	21.84	21.90	21.70	22.50
		6	0	20.88	20.88	20.86	21.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				23025/700.5	23095/707.5	23165/714.5	
3MHz	QPSK	1	0	23.69	23.78	23.79	24.50
		1	7	23.75	23.71	23.77	24.50
		1	14	23.85	23.75	23.88	24.50
		8	0	22.73	22.70	22.74	23.50
		8	4	22.73	22.78	22.79	23.50
		8	7	22.80	22.84	22.75	23.50
		15	0	22.76	22.82	22.76	23.50
	16QAM	1	0	22.98	22.96	22.99	23.50
		1	7	22.92	22.91	23.05	23.50
		1	14	23.01	23.02	23.06	23.50
		8	0	21.74	21.73	21.75	22.50
		8	4	21.79	21.83	21.83	22.50
		8	7	21.83	21.90	21.77	22.50
		15	0	21.79	21.81	21.79	22.50
	64QAM	1	0	22.01	22.00	21.96	22.50
		1	7	21.90	21.92	21.95	22.50
		1	14	21.94	21.98	22.03	22.50
		8	0	20.86	20.82	20.86	21.50
		8	4	20.91	20.93	20.93	21.50
		8	7	20.94	21.02	20.83	21.50
		15	0	20.91	20.92	20.89	21.50

Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				23035/701.5	23095/707.5	23155/713.5	
5MHz	QPSK	1	0	23.67	23.73	23.76	24.50
		1	13	23.74	23.71	23.75	24.50
		1	24	23.81	23.69	23.83	24.50
		12	0	22.71	22.66	22.71	23.50
		12	6	22.71	22.74	22.74	23.50
		12	13	22.77	22.83	22.72	23.50
		25	0	22.78	22.79	22.73	23.50
	16QAM	1	0	23.00	22.93	22.96	23.50
		1	13	22.94	22.90	23.03	23.50
		1	24	22.99	22.98	23.02	23.50
		12	0	21.72	21.72	21.73	22.50
		12	6	21.75	21.77	21.78	22.50
		12	13	21.81	21.86	21.74	22.50
		25	0	21.77	21.77	21.74	22.50
	64QAM	1	0	21.95	21.97	21.93	22.50
		1	13	21.88	21.91	21.93	22.50
		1	24	21.95	21.97	22.03	22.50
		12	0	20.86	20.85	20.88	21.50
		12	6	20.88	20.89	20.91	21.50
		12	13	20.92	20.98	20.80	21.50
		25	0	20.89	20.88	20.84	21.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				23060/704	23095/707.5	23130/711	
10MHz	QPSK	1	0	23.64	**23.69**	23.73	24.50
		1	25	23.73	23.67	23.73	24.50
		1	49	**23.79**	23.68	**23.80**	24.50
		25	0	22.68	22.61	22.67	23.50
		25	13	22.69	22.70	**22.71**	23.50
		25	25	**22.74**	**22.78**	22.68	23.50
		50	0	**22.75**	22.74	22.69	23.50
	16QAM	1	0	22.97	22.89	22.91	23.50
		1	25	22.91	22.88	22.99	23.50
		1	49	22.96	22.95	23.00	23.50
		25	0	21.69	21.68	21.70	22.50
		25	13	21.72	21.75	21.75	22.50
		25	25	21.78	21.81	21.70	22.50
		50	0	21.75	21.73	21.71	22.50
	64QAM	1	0	21.93	21.93	21.88	22.50
		1	25	21.84	21.89	21.89	22.50
		1	49	21.89	21.91	21.97	22.50
		25	0	20.81	20.77	20.81	21.50

		25	13	20.84	20.85	20.85	21.50
		25	25	20.89	20.93	20.76	21.50
		50	0	20.87	20.84	20.81	21.50

LTE Band 12							
Receiver on--Main Ant0				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				23017/699.7	23095/707.5	23173/715.3	
1.4MHz	QPSK	1	0	21.55	21.66	21.58	22.00
		1	2	21.58	21.57	21.56	22.00
		1	5	21.60	21.60	21.61	22.00
		3	0	21.55	21.54	21.50	22.00
		3	2	21.53	21.59	21.54	22.00
		3	3	21.56	21.63	21.52	22.00
		6	0	21.54	21.64	21.55	22.00
	16QAM	1	0	21.67	21.70	21.87	22.00
		1	2	21.66	21.63	21.79	22.00
		1	5	21.80	21.78	21.88	22.00
		3	0	21.58	21.49	21.67	22.00
		3	2	21.65	21.58	21.74	22.00
		3	3	21.69	21.67	21.83	22.00
		6	0	21.65	21.62	21.76	22.00
	64QAM	1	0	21.72	21.66	21.77	22.00
		1	2	21.68	21.61	21.69	22.00
		1	5	21.72	21.68	21.75	22.00
		3	0	21.72	21.66	21.84	22.00
		3	2	21.48	21.43	21.56	22.00
		3	3	21.52	21.53	21.63	22.00
		6	0	20.73	20.72	20.86	21.00
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				23025/700.5	23095/707.5	23165/714.5	
3MHz	QPSK	1	0	21.50	21.57	21.52	22.00
		1	7	21.56	21.53	21.52	22.00
		1	14	21.54	21.53	21.53	22.00
		8	0	21.50	21.45	21.43	22.00
		8	4	21.49	21.51	21.46	22.00
		8	7	21.50	21.57	21.45	22.00
		15	0	21.53	21.56	21.48	22.00
	16QAM	1	0	21.66	21.63	21.79	22.00
		1	7	21.65	21.60	21.73	22.00
		1	14	21.75	21.71	21.82	22.00
		8	0	21.53	21.44	21.62	22.00
		8	4	21.58	21.50	21.66	22.00

		8	7	21.64	21.58	21.76	22.00
		15	0	21.61	21.54	21.68	22.00
	64QAM	1	0	21.64	21.59	21.69	22.00
		1	7	21.60	21.56	21.63	22.00
		1	14	21.65	21.59	21.69	22.00
		8	0	20.65	20.57	20.77	21.00
		8	4	20.74	20.66	20.83	21.00
		8	7	20.80	20.75	20.91	21.00
		15	0	20.69	20.64	20.78	21.00
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				23035/701.5	23095/707.5	23155/713.5	
5MHz	QPSK	1	0	21.52	21.58	21.55	22.00
		1	13	21.59	21.58	21.56	22.00
		1	24	21.56	21.57	21.56	22.00
		12	0	21.53	21.50	21.47	22.00
		12	6	21.52	21.56	21.50	22.00
		12	13	21.52	21.61	21.50	22.00
		25	0	21.57	21.58	21.52	22.00
	16QAM	1	0	21.70	21.66	21.81	22.00
		1	13	21.69	21.64	21.76	22.00
		1	24	21.78	21.73	21.85	22.00
		12	0	21.56	21.49	21.66	22.00
		12	6	21.60	21.54	21.69	22.00
		12	13	21.67	21.63	21.80	22.00
		25	0	21.64	21.59	21.72	22.00
	64QAM	1	0	21.66	21.58	21.71	22.00
		1	13	21.63	21.56	21.66	22.00
		1	24	21.64	21.61	21.72	22.00
		12	0	20.68	20.62	20.77	21.00
		12	6	20.76	20.70	20.86	21.00
		12	13	20.83	20.80	20.95	21.00
		25	0	20.72	20.69	20.82	21.00
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				23060/704	23095/707.5	23130/711	
10MHz	QPSK	1	0	21.48	21.50	21.50	22.00
		1	25	**21.56**	**21.53**	**21.51**	22.00
		1	49	21.51	21.51	21.49	22.00
		25	0	**21.48**	21.41	21.40	22.00
		25	13	21.47	21.47	**21.43**	22.00
		25	25	21.46	**21.53**	21.42	22.00
		50	0	**21.52**	21.49	21.43	22.00
	16QAM	1	0	21.65	21.60	21.74	22.00
		1	25	21.64	21.59	21.70	22.00

		1	49	21.73	21.66	21.80	22.00
		25	0	21.50	21.43	21.60	22.00
		25	13	21.54	21.47	21.62	22.00
		25	25	21.62	21.54	21.73	22.00
		50	0	21.59	21.50	21.65	22.00
	64QAM	1	0	21.59	21.52	21.64	22.00
		1	25	21.57	21.51	21.60	22.00
		1	49	21.59	21.54	21.67	22.00
		25	0	20.62	20.56	20.71	21.00
		25	13	20.70	20.63	20.79	21.00
		25	25	20.78	20.71	20.88	21.00
		50	0	20.67	20.60	20.75	21.00

LTE Band 13							
Normal power & Receiver off & Hotspot on--Main Ant0				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				23205/779.5	23230/782	23255/784.5	
5MHz	QPSK	1	0	22.71	22.80	22.69	24.00
		1	13	22.88	22.92	22.88	24.00
		1	24	22.90	22.97	22.87	24.00
		12	0	21.92	22.01	21.90	23.00
		12	6	21.90	21.98	21.88	23.00
		12	13	21.99	22.05	21.95	23.00
		25	0	21.97	22.05	21.96	23.00
	16QAM	1	0	21.89	21.96	21.88	23.00
		1	13	22.01	22.04	22.00	23.00
		1	24	21.94	22.01	21.92	23.00
		12	0	20.88	20.93	20.85	22.00
		12	6	20.92	21.00	20.88	22.00
		12	13	20.96	21.05	20.94	22.00
		25	0	20.93	21.01	20.91	22.00
	64QAM	1	0	20.63	20.70	20.58	22.00
		1	13	20.63	20.66	20.60	22.00
		1	24	20.68	20.75	20.62	22.00
		12	0	20.04	20.09	20.01	21.00
		12	6	20.06	20.14	20.02	21.00
		12	13	20.11	20.20	20.09	21.00
		25	0	20.08	20.16	20.06	21.00
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				/	23230/782	/	
10MHz	QPSK	1	0	/	22.64	/	24.00
		1	25	/	**22.83**	/	24.00

		1	49	/	22.80	/	24.00
		25	0	/	21.83	/	23.00
		25	13	/	21.81	/	23.00
		25	25	/	**21.87**	/	23.00
		50	0	/	**21.87**	/	23.00
	16QAM	1	0	/	21.81	/	23.00
		1	25	/	21.94	/	23.00
		1	49	/	21.87	/	23.00
		25	0	/	20.79	/	22.00
		25	13	/	20.81	/	22.00
		25	25	/	20.87	/	22.00
		50	0	/	20.84	/	22.00
	64QAM	1	0	/	20.51	/	22.00
		1	25	/	20.54	/	22.00
		1	49	/	20.57	/	22.00
		25	0	/	19.95	/	21.00
		25	13	/	19.95	/	21.00
		25	25	/	20.02	/	21.00
		50	0	/	19.99	/	21.00

LTE Band 13							
Receiver on--Main Ant0				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				23205/779.5	23230/782	23255/784.5	
5MHz	QPSK	1	0	21.53	21.48	21.38	22.00
		1	13	21.48	21.46	21.44	22.00
		1	24	21.48	21.42	21.41	22.00
		12	0	21.53	21.48	21.44	22.00
		12	6	21.42	21.34	21.31	22.00
		12	13	21.52	21.42	21.38	22.00
		25	0	21.56	21.51	21.44	22.00
	16QAM	1	0	21.52	21.47	21.43	22.00
		1	13	21.57	21.52	21.47	22.00
		1	24	21.57	21.48	21.41	22.00
		12	0	21.54	21.45	21.41	22.00
		12	6	21.50	21.39	21.33	22.00
		12	13	21.58	21.53	21.45	22.00
		25	0	21.58	21.54	21.47	22.00
	64QAM	1	0	21.48	21.40	21.28	22.00
		1	13	21.53	21.47	21.38	22.00
		1	24	21.52	21.47	21.36	22.00
		12	0	20.62	20.57	20.49	21.00
		12	6	20.56	20.49	20.40	21.00

		12	13	20.57	20.52	20.44	21.00
		25	0	20.57	20.53	20.46	21.00
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				/	23230/782	/	
10MHz	QPSK	1	0	/	21.39	/	22.00
		1	25	/	**21.46**	/	22.00
		1	49	/	21.42	/	22.00
		25	0	/	**21.44**	/	22.00
		25	13	/	21.36	/	22.00
		25	25	/	21.42	/	22.00
		50	0	/	**21.48**	/	22.00
	16QAM	1	0	/	21.46	/	22.00
		1	25	/	21.51	/	22.00
		1	49	/	21.47	/	22.00
		25	0	/	21.46	/	22.00
		25	13	/	21.38	/	22.00
		25	25	/	21.45	/	22.00
		50	0	/	21.48	/	22.00
	64QAM	1	0	/	21.31	/	22.00
		1	25	/	21.42	/	22.00
		1	49	/	21.38	/	22.00
		25	0	/	20.46	/	21.00
		25	13	/	20.38	/	21.00
		25	25	/	20.44	/	21.00
		50	0	/	20.43	/	21.00

LTE Band 66							
Normal power & Receiver on-Div Ant1				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				131979/1710.7	132322/1745	132665/1779.3	
1.4MHz	QPSK	1	0	21.98	22.10	22.06	23.30
		1	2	22.10	22.21	22.27	23.30
		1	5	21.97	22.12	22.29	23.30
		3	0	21.80	22.13	22.25	23.30
		3	2	21.87	22.15	22.21	23.30
		3	3	21.91	22.19	22.31	23.30
		6	0	20.88	21.23	21.34	22.30
	16QAM	1	0	21.21	21.14	21.20	22.30
		1	2	21.30	21.26	21.29	22.30
		1	5	21.30	21.16	21.24	22.30
		3	0	21.18	21.04	21.12	22.30
		3	2	21.19	21.06	21.15	22.30
		3	3	21.28	21.17	21.21	22.30

		6	0	20.25	20.20	20.28	21.30
	64QAM	1	0	20.19	20.10	20.18	21.30
		1	2	20.30	20.23	20.30	21.30
		1	5	20.22	20.16	20.17	21.30
		3	0	20.13	20.01	20.07	21.30
		3	2	20.24	20.08	20.17	21.30
		3	3	20.26	20.16	20.20	21.30
		6	0	19.26	19.17	19.26	20.30
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				131987/1711.5	132322/1745	132657/1778.5	
3MHz	QPSK	1	0	22.00	22.14	22.09	23.30
		1	7	22.08	22.24	22.31	23.30
		1	14	22.00	22.17	22.33	23.30
		8	0	20.90	21.25	21.38	22.30
		8	4	20.99	21.25	21.33	22.30
		8	7	21.01	21.30	21.41	22.30
		15	0	20.88	21.27	21.37	22.30
	16QAM	1	0	21.21	21.16	21.23	22.30
		1	7	21.30	21.26	21.33	22.30
		1	14	21.32	21.20	21.27	22.30
		8	0	20.29	20.17	20.24	21.30
		8	4	20.30	20.19	20.27	21.30
		8	7	20.38	20.29	20.34	21.30
		15	0	20.28	20.24	20.31	21.30
	64QAM	1	0	20.22	20.12	20.21	21.30
		1	7	20.33	20.23	20.32	21.30
		1	14	20.24	20.15	20.20	21.30
		8	0	19.24	19.14	19.19	20.30
		8	4	19.35	19.21	19.29	20.30
		8	7	19.36	19.28	19.33	20.30
		15	0	19.29	19.21	19.29	20.30
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				131997/1712.5	132322/1745	132647/1777.5	
5MHz	QPSK	1	0	21.97	22.12	22.05	23.30
		1	13	22.06	22.20	22.28	23.30
		1	24	21.97	22.12	22.29	23.30
		12	0	20.87	21.20	21.34	22.30
		12	6	20.97	21.21	21.28	22.30
		12	13	20.99	21.28	21.37	22.30
		25	0	20.88	21.26	21.35	22.30
	16QAM	1	0	21.21	21.12	21.20	22.30
		1	13	21.30	21.24	21.30	22.30
		1	24	21.29	21.18	21.23	22.30

		12	0	20.27	20.13	20.21	21.30
		12	6	20.27	20.14	20.23	21.30
		12	13	20.35	20.24	20.30	21.30
		25	0	20.26	20.20	20.26	21.30
	64QAM	1	0	20.19	20.12	20.18	21.30
		1	13	20.30	20.25	20.29	21.30
		1	24	20.25	20.13	20.16	21.30
		12	0	19.22	19.10	19.20	20.30
		12	6	19.32	19.16	19.25	20.30
		12	13	19.33	19.23	19.29	20.30
		25	0	19.27	19.17	19.24	20.30
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				132022/1715	132322/1745	132622/1775	
10MHz	QPSK	1	0	21.99	22.13	22.08	23.30
		1	25	22.09	22.25	22.32	23.30
		1	49	21.99	22.16	22.32	23.30
		25	0	20.90	21.25	21.38	22.30
		25	13	21.00	21.26	21.32	22.30
		25	25	21.01	21.32	21.42	22.30
		50	0	20.92	21.28	21.39	22.30
	16QAM	1	0	21.25	21.15	21.22	22.30
		1	25	21.34	21.28	21.33	22.30
		1	49	21.32	21.20	21.26	22.30
		25	0	20.30	20.18	20.25	21.30
		25	13	20.29	20.18	20.26	21.30
		25	25	20.38	20.29	20.34	21.30
		50	0	20.29	20.25	20.30	21.30
	64QAM	1	0	20.21	20.11	20.20	21.30
		1	25	20.33	20.25	20.32	21.30
		1	49	20.24	20.15	20.19	21.30
		25	0	19.25	19.15	19.20	20.30
		25	13	19.34	19.20	19.28	20.30
		25	25	19.36	19.28	19.33	20.30
		50	0	19.30	19.22	19.28	20.30
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				132047/1717.5	132322/1745	132597/1772.5	
15MHz	QPSK	1	0	21.98	22.09	22.06	23.30
		1	38	22.07	22.24	22.29	23.30
		1	74	21.96	22.11	22.28	23.30
		36	0	20.88	21.21	21.35	22.30
		36	18	20.97	21.21	21.28	22.30
		36	39	20.98	21.29	21.38	22.30
		75	0	20.90	21.24	21.34	22.30

	16QAM	1	0	21.23	21.13	21.20	22.30
		1	38	21.32	21.25	21.31	22.30
		1	74	21.30	21.16	21.23	22.30
		36	0	20.27	20.16	20.22	21.30
		36	18	20.26	20.13	20.22	21.30
		36	39	20.36	20.25	20.31	21.30
		75	0	20.26	20.20	20.26	21.30
	64QAM	1	0	20.16	20.09	20.18	21.30
		1	38	20.31	20.22	20.30	21.30
		1	74	20.25	20.14	20.20	21.30
		36	0	19.24	19.17	19.21	20.30
		36	18	19.32	19.17	19.27	20.30
		36	39	19.34	19.24	19.30	20.30
		75	0	19.27	19.17	19.24	20.30

Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				132072/1720	132322 /1745	132572/1770	
20MHz	QPSK	1	0	21.95	22.05	22.03	23.30
		1	50	**22.06**	**22.20**	**22.27**	23.30
		1	99	21.94	22.10	22.25	23.30
		50	0	20.85	21.16	21.31	22.30
		50	25	**20.95**	21.17	21.25	22.30
		50	50	**20.95**	**21.24**	**21.34**	22.30
		100	0	20.87	21.19	**21.30**	22.30
	16QAM	1	0	21.20	21.09	21.15	22.30
		1	50	21.29	21.23	21.27	22.30
		1	99	21.27	21.13	21.21	22.30
		50	0	20.24	20.12	20.19	21.30
		50	25	20.23	20.11	20.19	21.30
		50	50	20.33	20.20	20.27	21.30
		100	0	20.24	20.16	20.23	21.30
	64QAM	1	0	20.14	20.05	20.13	21.30
		1	50	20.27	20.20	20.26	21.30
		1	99	20.19	20.08	20.14	21.30
		50	0	19.19	19.09	19.14	20.30
		50	25	19.28	19.13	19.21	20.30
		50	50	19.31	19.19	19.26	20.30
		100	0	19.25	19.13	19.21	20.30

LTE Band 66							
Receiver off-Div Ant1				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				131979/1710.7	132322/1745	132665/1779.3	
1.4MHz	QPSK	1	0	16.97	17.04	17.03	18.00
		1	2	17.09	17.13	17.29	18.00
		1	5	16.99	17.06	17.29	18.00
		3	0	16.94	17.13	17.38	18.00
		3	2	17.03	17.15	17.31	18.00
		3	3	16.99	17.20	17.42	18.00
		6	0	16.89	17.14	17.38	18.00
	16QAM	1	0	17.15	17.04	17.10	18.00
		1	2	17.20	17.16	17.23	18.00
		1	5	17.17	17.09	17.10	18.00
		3	0	17.21	17.09	17.12	18.00
		3	2	17.24	17.14	17.17	18.00
		3	3	17.30	17.20	17.22	18.00
		6	0	17.22	17.15	17.18	18.00
	64QAM	1	0	17.12	17.02	17.08	18.00
		1	2	17.27	17.18	17.25	18.00
		1	5	17.17	17.03	17.08	18.00
		3	0	17.23	17.10	17.17	18.00
		3	2	17.29	17.14	17.20	18.00
		3	3	17.33	17.24	17.26	18.00
		6	0	17.24	17.17	17.20	18.00
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				131987/1711.5	132322/1745	132657/1778.5	
3MHz	QPSK	1	0	16.95	16.99	17.00	18.00
		1	7	17.08	17.13	17.27	18.00
		1	14	16.95	17.00	17.24	18.00
		8	0	16.92	17.09	17.35	18.00
		8	4	17.01	17.11	17.26	18.00
		8	7	16.96	17.19	17.39	18.00
		15	0	16.91	17.11	17.35	18.00
	16QAM	1	0	17.17	17.01	17.07	18.00
		1	7	17.22	17.15	17.21	18.00
		1	14	17.15	17.05	17.06	18.00
		8	0	17.19	17.08	17.10	18.00
		8	4	17.20	17.08	17.12	18.00
		8	7	17.28	17.16	17.19	18.00
		15	0	17.20	17.11	17.13	18.00
	64QAM	1	0	17.06	16.99	17.05	18.00

		1	7	17.25	17.17	17.23	18.00
		1	14	17.18	17.02	17.08	18.00
		8	0	17.23	17.13	17.19	18.00
		8	4	17.26	17.10	17.18	18.00
		8	7	17.31	17.20	17.23	18.00
		15	0	17.22	17.13	17.15	18.00
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				131997/1712.5	132322/1745	132647/1777.5	
5MHz	QPSK	1	0	17.00	17.08	17.06	18.00
		1	13	17.10	17.17	17.31	18.00
		1	24	17.01	17.07	17.32	18.00
		12	0	16.97	17.18	17.42	18.00
		12	6	17.05	17.19	17.34	18.00
		12	13	17.02	17.25	17.46	18.00
		25	0	16.92	17.19	17.42	18.00
	16QAM	1	0	17.18	17.08	17.15	18.00
		1	13	17.23	17.18	17.27	18.00
		1	24	17.20	17.12	17.12	18.00
		12	0	17.24	17.13	17.15	18.00
		12	6	17.27	17.16	17.20	18.00
		12	13	17.33	17.25	17.26	18.00
		25	0	17.24	17.19	17.21	18.00
	64QAM	1	0	17.14	17.06	17.13	18.00
		1	13	17.31	17.20	17.29	18.00
		1	24	17.23	17.09	17.14	18.00
		12	0	17.28	17.18	17.24	18.00
		12	6	17.33	17.18	17.26	18.00
		12	13	17.36	17.29	17.30	18.00
		25	0	17.26	17.21	17.23	18.00
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				132022/1715	132322/1745	132622/1775	
10MHz	QPSK	1	0	17.02	17.15	17.08	18.00
		1	25	17.10	17.17	17.32	18.00
		1	49	17.04	17.09	17.36	18.00
		25	0	16.99	17.22	17.45	18.00
		25	13	17.07	17.23	17.37	18.00
		25	25	17.06	17.29	17.49	18.00
		50	0	16.93	17.26	17.47	18.00
	16QAM	1	0	17.19	17.11	17.20	18.00
		1	25	17.24	17.19	17.30	18.00
		1	49	17.22	17.17	17.14	18.00
		25	0	17.27	17.14	17.17	18.00
		25	13	17.31	17.19	17.24	18.00

		25	25	17.35	17.29	17.29	18.00
		50	0	17.26	17.23	17.24	18.00
	64QAM	1	0	17.19	17.13	17.18	18.00
		1	25	17.34	17.25	17.32	18.00
		1	49	17.29	17.14	17.16	18.00
		25	0	17.31	17.19	17.30	18.00
		25	13	17.37	17.21	17.30	18.00
		25	25	17.38	17.33	17.33	18.00
		50	0	17.28	17.25	17.26	18.00
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				132047/1717.5	132322/1745	132597/1772.5	
15MHz	QPSK	1	0	16.99	17.11	17.05	18.00
		1	38	17.09	17.13	17.30	18.00
		1	74	17.02	17.08	17.33	18.00
		36	0	16.96	17.17	17.41	18.00
		36	18	17.05	17.19	17.34	18.00
		36	39	17.03	17.24	17.45	18.00
		75	0	16.90	17.21	17.43	18.00
	16QAM	1	0	17.16	17.07	17.15	18.00
		1	38	17.21	17.17	17.26	18.00
		1	74	17.19	17.14	17.12	18.00
		36	0	17.24	17.10	17.14	18.00
		36	18	17.28	17.17	17.21	18.00
		36	39	17.32	17.24	17.25	18.00
		75	0	17.24	17.19	17.21	18.00
	64QAM	1	0	17.17	17.09	17.13	18.00
		1	38	17.30	17.23	17.28	18.00
		1	74	17.23	17.08	17.10	18.00
		36	0	17.26	17.11	17.23	18.00
		36	18	17.33	17.17	17.24	18.00
		36	39	17.35	17.28	17.29	18.00
		75	0	17.26	17.21	17.23	18.00
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				132072/1720	132322/1745	132572/1770	
20MHz	QPSK	1	0	16.92	16.95	16.97	18.00
		1	50	**17.07**	**17.09**	**17.25**	18.00
		1	99	16.93	16.99	17.21	18.00
		50	0	16.89	17.04	17.31	18.00
		50	25	**16.99**	17.07	17.23	18.00
		50	50	16.93	**17.14**	**17.35**	18.00
		100	0	16.88	17.06	**17.31**	18.00
	16QAM	1	0	17.14	16.97	17.02	18.00
		1	50	17.19	17.13	17.17	18.00

		1	99	17.12	17.02	17.04	18.00
		50	0	17.16	17.04	17.07	18.00
		50	25	17.17	17.06	17.09	18.00
		50	50	17.25	17.11	17.15	18.00
		100	0	17.18	17.07	17.10	18.00
	64QAM	1	0	17.04	16.95	17.00	18.00
		1	50	17.21	17.15	17.19	18.00
		1	99	17.12	16.96	17.02	18.00
		50	0	17.18	17.05	17.12	18.00
		50	25	17.22	17.06	17.12	18.00
		50	50	17.28	17.15	17.19	18.00
		100	0	17.20	17.09	17.12	18.00

LTE Band 66							
Hotspot on-Div Ant1				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				131979/1710.7	132322/1745	132665/1779.3	
1.4MHz	QPSK	1	0	13.20	13.24	13.21	14.00
		1	2	13.07	13.25	13.39	14.00
		1	5	13.04	13.18	13.40	14.00
		3	0	13.14	13.28	13.48	14.00
		3	2	13.07	13.29	13.43	14.00
		3	3	13.10	13.35	13.49	14.00
		6	0	13.03	13.32	13.50	14.00
	16QAM	1	0	13.29	13.31	13.29	14.00
		1	2	13.48	13.47	13.47	14.00
		1	5	13.58	13.55	13.44	14.00
		3	0	13.64	13.54	13.48	14.00
		3	2	13.59	13.51	13.45	14.00
		3	3	13.65	13.63	13.52	14.00
		6	0	13.59	13.62	13.52	14.00
	64QAM	1	0	13.37	13.32	13.24	14.00
		1	2	13.52	13.47	13.42	14.00
		1	5	13.56	13.46	13.37	14.00
		3	0	13.60	13.50	13.49	14.00
		3	2	13.60	13.49	13.43	14.00
		3	3	13.62	13.61	13.51	14.00
		6	0	13.57	13.57	13.49	14.00
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				131987/1711.5	132322/1745	132657/1778.5	
3MHz	QPSK	1	0	13.17	13.22	13.17	14.00
		1	7	13.05	13.21	13.36	14.00
		1	14	13.01	13.13	13.36	14.00

		8	0	13.11	13.23	13.44	14.00
		8	4	13.05	13.25	13.38	14.00
		8	7	13.08	13.33	13.45	14.00
		15	0	13.03	13.31	13.48	14.00
	16QAM	1	0	13.29	13.27	13.26	14.00
		1	7	13.48	13.45	13.44	14.00
		1	14	13.55	13.53	13.40	14.00
		8	0	13.62	13.50	13.45	14.00
		8	4	13.56	13.46	13.41	14.00
		8	7	13.62	13.58	13.48	14.00
		15	0	13.57	13.58	13.47	14.00
	64QAM	1	0	13.34	13.32	13.21	14.00
		1	7	13.49	13.49	13.39	14.00
		1	14	13.57	13.44	13.33	14.00
		8	0	13.58	13.46	13.50	14.00
		8	4	13.57	13.44	13.39	14.00
		8	7	13.59	13.56	13.47	14.00
		15	0	13.55	13.53	13.44	14.00
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				131997/1712.5	132322/1745	132647/1777.5	
5MHz	QPSK	1	0	13.19	13.23	13.20	14.00
		1	13	13.08	13.26	13.40	14.00
		1	24	13.03	13.17	13.39	14.00
		12	0	13.14	13.28	13.48	14.00
		12	6	13.08	13.30	13.42	14.00
		12	13	13.10	13.37	13.50	14.00
		25	0	13.07	13.33	13.52	14.00
	16QAM	1	0	13.33	13.30	13.28	14.00
		1	13	13.52	13.49	13.47	14.00
		1	24	13.58	13.55	13.43	14.00
		12	0	13.65	13.55	13.49	14.00
		12	6	13.58	13.50	13.44	14.00
		12	13	13.65	13.63	13.52	14.00
		25	0	13.60	13.63	13.51	14.00
	64QAM	1	0	13.36	13.31	13.23	14.00
		1	13	13.52	13.49	13.42	14.00
		1	24	13.56	13.46	13.36	14.00
		12	0	13.61	13.51	13.50	14.00
		12	6	13.59	13.48	13.42	14.00
		12	13	13.62	13.61	13.51	14.00
		25	0	13.58	13.58	13.48	14.00

Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				132022/1715	132322/1745	132622/1775	
10MHz	QPSK	1	0	13.18	13.19	13.18	14.00
		1	25	13.06	13.25	13.37	14.00
		1	49	13.00	13.12	13.35	14.00
		25	0	13.12	13.24	13.45	14.00
		25	13	13.05	13.25	13.38	14.00
		25	25	13.07	13.34	13.46	14.00
		50	0	13.05	13.29	13.47	14.00
	16QAM	1	0	13.31	13.28	13.26	14.00
		1	25	13.50	13.46	13.45	14.00
		1	49	13.56	13.51	13.40	14.00
		25	0	13.62	13.53	13.46	14.00
		25	13	13.55	13.45	13.40	14.00
		25	25	13.63	13.59	13.49	14.00
		50	0	13.57	13.58	13.47	14.00
	64QAM	1	0	13.31	13.29	13.21	14.00
		1	25	13.50	13.46	13.40	14.00
		1	49	13.57	13.45	13.37	14.00
		25	0	13.60	13.53	13.51	14.00
		25	13	13.57	13.45	13.41	14.00
		25	25	13.60	13.57	13.48	14.00
		50	0	13.55	13.53	13.44	14.00
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				132047/1717.5	132322/1745	132597/1772.5	
15MHz	QPSK	1	0	13.15	13.15	13.15	14.00
		1	38	13.05	13.21	13.35	14.00
		1	74	12.98	13.11	13.32	14.00
		36	0	13.09	13.19	13.41	14.00
		36	18	13.03	13.21	13.35	14.00
		36	39	13.04	13.29	13.42	14.00
		75	0	13.02	13.24	13.43	14.00
	16QAM	1	0	13.28	13.24	13.21	14.00
		1	38	13.47	13.44	13.41	14.00
		1	74	13.53	13.48	13.38	14.00
		36	0	13.59	13.49	13.43	14.00
		36	18	13.52	13.43	13.37	14.00
		36	39	13.60	13.54	13.45	14.00
		75	0	13.55	13.54	13.44	14.00
	64QAM	1	0	13.29	13.25	13.16	14.00
		1	38	13.46	13.44	13.36	14.00
		1	74	13.51	13.39	13.31	14.00
		36	0	13.55	13.45	13.44	14.00

		36	18	13.53	13.41	13.35	14.00
		36	39	13.57	13.52	13.44	14.00
		75	0	13.53	13.49	13.41	14.00
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				132072/1720	132322/1745	132572/1770	
20MHz	QPSK	1	0	**13.13**	13.08	13.13	14.00
		1	50	13.05	**13.21**	**13.34**	14.00
		1	99	12.95	13.09	13.28	14.00
		50	0	**13.07**	13.15	13.38	14.00
		50	25	13.01	13.17	13.32	14.00
		50	50	13.00	**13.25**	**13.39**	14.00
		100	0	13.01	13.17	**13.38**	14.00
	16QAM	1	0	13.27	13.21	13.16	14.00
		1	50	13.46	13.43	13.38	14.00
		1	99	13.51	13.43	13.36	14.00
		50	0	13.56	13.48	13.41	14.00
		50	25	13.48	13.40	13.33	14.00
		50	50	13.58	13.50	13.42	14.00
		100	0	13.53	13.50	13.41	14.00
	64QAM	1	0	13.24	13.18	13.11	14.00
		1	50	13.43	13.39	13.33	14.00
		1	99	13.45	13.34	13.29	14.00
		50	0	13.52	13.44	13.38	14.00
		50	25	13.49	13.38	13.31	14.00
		50	50	13.55	13.48	13.41	14.00
		100	0	13.51	13.45	13.38	14.00

9.2.2 NR

NR n2(SA)							
Normal power &Receiver off& Hotspot on-Main Ant2				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				370500/1852.5	376000/1880	381500/1907.5	
5MHz	DFT-s-OFDM BPSK	1	1	23.29	23.55	23.54	24.80
		1	23	23.39	23.48	23.70	24.80
		12	6	23.55	23.64	23.89	24.80
		25	0	23.05	23.25	23.28	24.30
	DFT-s-OFDM QPSK	1	1	23.32	23.60	23.61	24.80
		1	23	23.47	23.58	23.80	24.80
		12	6	23.47	23.74	23.89	24.80
		25	0	22.86	22.86	23.00	23.80
	DFT-s-OFDM 16QAM	1	1	22.04	22.15	22.35	23.30
		1	23	22.16	22.22	22.51	23.30
		12	6	22.46	22.58	22.77	23.30
	DFT-s-OFDM 64QAM	1	1	20.85	20.89	21.05	21.80
		1	23	20.94	20.98	21.18	21.80
		12	6	21.08	21.17	21.33	21.80
	DFT-s-OFDM 256QAM	1	1	19.26	19.29	19.49	20.30
		1	23	19.37	19.25	19.60	20.30
		12	6	19.05	19.14	19.25	20.30
	CP-OFDM QPSK	1	1	21.93	21.99	22.09	22.80
	CP-OFDM 16QAM	1	1	21.70	21.80	21.94	22.80
	CP-OFDM 64QAM	1	1	19.93	20.14	20.18	21.30
	CP-OFDM 256QAM	1	1	16.74	16.96	17.02	17.80
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				371000/1855	376000/1880	381000/1905	
10MHz	DFT-s-OFDM BPSK	1	1	23.16	23.30	23.38	24.80
		1	50	23.31	23.34	23.56	24.80
		25	12	23.39	23.45	23.67	24.80
		50	0	22.90	22.98	23.07	24.30
	DFT-s-OFDM QPSK	1	1	23.18	23.34	23.39	24.80
		1	50	23.29	23.36	23.57	24.80
		25	12	23.36	23.48	23.64	24.80
		50	0	22.93	23.02	22.99	23.80
	DFT-s-OFDM 16QAM	1	1	21.93	22.02	22.17	23.30
		1	50	22.01	22.01	22.35	23.30

		25	12	22.29	22.41	22.60	23.30
	DFT-s-OFDM 64QAM	1	1	20.66	20.67	20.83	21.80
		1	50	20.79	20.71	20.97	21.80
		25	12	20.94	20.91	21.11	21.80
	DFT-s-OFDM 256QAM	1	1	19.04	19.10	19.27	20.30
		1	50	19.19	19.12	19.42	20.30
		25	12	18.90	18.93	19.09	20.30
	CP-OFDM QPSK	1	1	21.76	21.82	21.92	22.80
	CP-OFDM 16QAM	1	1	21.51	21.58	21.72	22.80
	CP-OFDM 64QAM	1	1	19.78	19.87	19.97	21.30
	CP-OFDM 256QAM	1	1	16.60	16.70	16.80	17.80
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				371500/1857.5	376000/1880	380500/1902.5	
15MHz	DFT-s-OFDM BPSK	1	1	23.24	23.46	23.48	24.80
		1	77	23.37	23.44	23.66	24.80
		36	18	23.49	23.57	23.81	24.80
		75	0	23.00	23.16	23.21	24.30
	DFT-s-OFDM QPSK	1	1	23.28	23.52	23.53	24.80
		1	77	23.41	23.52	23.73	24.80
		36	18	23.46	23.66	23.82	24.80
		75	0	22.81	22.84	22.92	23.80
	DFT-s-OFDM 16QAM	1	1	22.03	22.12	22.29	23.30
		1	77	22.11	22.15	22.45	23.30
		36	18	22.41	22.53	22.72	23.30
	DFT-s-OFDM 64QAM	1	1	20.78	20.81	20.97	21.80
		1	77	20.89	20.89	21.11	21.80
		36	18	21.04	21.09	21.25	21.80
	DFT-s-OFDM 256QAM	1	1	19.18	19.22	19.41	20.30
		1	77	19.31	19.22	19.54	20.30
		36	18	19.00	19.07	19.19	20.30
	CP-OFDM QPSK	1	1	21.88	21.94	22.04	22.80
	CP-OFDM 16QAM	1	1	21.63	21.72	21.86	22.80
	CP-OFDM 64QAM	1	1	19.88	20.05	20.11	21.30
	CP-OFDM 256QAM	1	1	16.70	16.88	16.94	17.80

Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				372000/1860	376000/1880	380000/1900	
20MHz	DFT-s-OFDM BPSK	1	1	23.13	23.26	23.35	24.80
		1	104	23.30	23.30	23.54	24.80
		50	25	23.37	23.44	23.64	24.80
		100	0	22.87	22.93	23.03	24.30
	DFT-s-OFDM QPSK	1	1	23.16	23.30	23.36	24.80
		1	104	**23.26**	**23.31**	**23.53**	24.80
		50	25	23.33	23.43	**23.60**	24.80
		100	0	22.91	22.93	**22.95**	23.80
	DFT-s-OFDM 16QAM	1	1	21.90	22.00	22.13	23.30
		1	104	21.98	21.98	22.33	23.30
		50	25	22.26	22.37	22.57	23.30
	DFT-s-OFDM 64QAM	1	1	20.63	20.65	20.80	21.80
		1	104	20.76	20.66	20.93	21.80
		50	25	20.92	20.87	21.08	21.80
	DFT-s-OFDM 256QAM	1	1	19.02	19.06	19.22	20.30
		1	104	19.15	19.10	19.38	20.30
		50	25	18.84	18.87	19.03	20.30
	CP-OFDM QPSK	1	1	21.71	21.74	21.85	22.80
	CP-OFDM 16QAM	1	1	21.47	21.54	21.66	22.80
	CP-OFDM 64QAM	1	1	19.75	19.82	19.93	21.30
	CP-OFDM 256QAM	1	1	16.58	16.66	16.77	17.80

NR n2(SA)							
Receiver on-Main Ant2				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				370500/1852.5	376000/1880	381500/1907.5	
5MHz	DFT-s-OFDM BPSK	1	1	18.40	18.47	18.81	19.00
		1	23	18.49	18.69	18.86	19.00
		12	6	18.60	18.79	18.94	19.00
		25	0	18.52	18.82	18.95	19.00
	DFT-s-OFDM QPSK	1	1	18.42	18.46	18.84	19.00
		1	23	18.52	18.71	18.88	19.00
		12	6	18.53	18.82	18.97	19.00
		25	0	18.47	18.76	18.99	19.00
	DFT-s-OFDM 16QAM	1	1	18.16	18.14	18.58	19.00
		1	23	18.26	18.48	18.84	19.00
		12	6	18.62	18.78	18.89	19.00

	DFT-s-OFDM 64QAM	1	1	18.30	18.25	18.65	19.00
		1	23	18.28	18.59	18.89	19.00
		12	6	18.59	18.85	18.93	19.00
	DFT-s-OFDM 256QAM	1	1	18.88	18.84	19.00	19.00
		1	23	18.71	18.81	19.00	19.00
		12	6	18.60	18.80	18.99	19.00
	CP-OFDM QPSK	1	1	18.55	18.41	18.72	19.00
	CP-OFDM 16QAM	1	1	18.80	18.79	18.95	19.00
	CP-OFDM 64QAM	1	1	18.59	18.55	18.90	19.00
	CP-OFDM 256QAM	1	1	16.84	17.00	17.10	17.80
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				371000/1855	376000/1880	381000/1905	
10MHz	DFT-s-OFDM BPSK	1	1	18.39	18.43	18.79	19.00
		1	50	18.47	18.68	18.83	19.00
		25	12	18.57	18.74	18.90	19.00
		50	0	18.50	18.78	18.92	19.00
	DFT-s-OFDM QPSK	1	1	18.39	18.41	18.80	19.00
		1	50	18.49	18.68	18.84	19.00
		25	12	18.51	18.78	18.92	19.00
		50	0	18.45	18.74	18.97	19.00
	DFT-s-OFDM 16QAM	1	1	18.14	18.11	18.56	19.00
		1	50	18.24	18.44	18.81	19.00
		25	12	18.59	18.76	18.86	19.00
	DFT-s-OFDM 64QAM	1	1	18.27	18.20	18.61	19.00
		1	50	18.26	18.55	18.86	19.00
		25	12	18.56	18.80	18.89	19.00
	DFT-s-OFDM 256QAM	1	1	18.83	18.82	18.98	19.00
		1	50	18.69	18.78	18.98	19.00
		25	12	18.61	18.79	19.00	19.00
	CP-OFDM QPSK	1	1	18.54	18.43	18.73	19.00
	CP-OFDM 16QAM	1	1	18.78	18.76	18.94	19.00
	CP-OFDM 64QAM	1	1	18.57	18.51	18.87	19.00
	CP-OFDM 256QAM	1	1	16.81	16.95	17.06	17.80

Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				371500/1857.5	376000/1880	380500/1902.5	
15MHz	DFT-s-OFDM BPSK	1	1	18.36	18.39	18.76	19.00
		1	77	18.46	18.64	18.81	19.00
		36	18	18.55	18.73	18.87	19.00
		75	0	18.47	18.73	18.88	19.00
	DFT-s-OFDM QPSK	1	1	18.37	18.37	18.77	19.00
		1	77	18.46	18.63	18.80	19.00
		36	18	18.48	18.73	18.88	19.00
		75	0	18.42	18.70	18.92	19.00
	DFT-s-OFDM 16QAM	1	1	18.11	18.09	18.52	19.00
		1	77	18.21	18.41	18.79	19.00
		36	18	18.56	18.72	18.83	19.00
	DFT-s-OFDM 64QAM	1	1	18.24	18.18	18.58	19.00
		1	77	18.23	18.50	18.82	19.00
		36	18	18.54	18.76	18.86	19.00
	DFT-s-OFDM 256QAM	1	1	18.81	18.78	18.93	19.00
		1	77	18.65	18.76	18.94	19.00
		36	18	18.55	18.73	18.94	19.00
	CP-OFDM QPSK	1	1	18.49	18.35	18.66	19.00
	CP-OFDM 16QAM	1	1	18.74	18.72	18.88	19.00
	CP-OFDM 64QAM	1	1	18.54	18.46	18.83	19.00
	CP-OFDM 256QAM	1	1	16.79	16.91	17.03	17.80
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				372000/1860	376000/1880	380000/1900	
20MHz	DFT-s-OFDM BPSK	1	1	18.31	18.30	18.70	19.00
		1	104	18.44	18.60	18.77	19.00
		50	25	18.49	18.66	18.79	19.00
		100	0	18.42	18.64	18.81	19.00
	DFT-s-OFDM QPSK	1	1	18.33	18.29	18.69	19.00
		1	104	**18.40**	**18.57**	**18.73**	19.00
		50	25	18.47	18.65	**18.81**	19.00
		100	0	18.41	18.63	**18.84**	19.00
	DFT-s-OFDM 16QAM	1	1	18.10	18.06	18.46	19.00
		1	104	18.16	18.34	18.73	19.00
		50	25	18.51	18.67	18.78	19.00
	DFT-s-OFDM 64QAM	1	1	18.17	18.10	18.50	19.00
		1	104	18.18	18.41	18.75	19.00
		50	25	18.50	18.68	18.78	19.00

	DFT-s-OFDM 256QAM	1	1	18.73	18.71	18.85	19.00
		1	104	18.59	18.73	18.88	19.00
		50	25	18.50	18.66	18.88	19.00
	CP-OFDM QPSK	1	1	18.44	18.30	18.61	19.00
	CP-OFDM 16QAM	1	1	18.67	18.64	18.80	19.00
	CP-OFDM 64QAM	1	1	18.49	18.37	18.76	19.00
	CP-OFDM 256QAM	1	1	16.75	16.83	16.95	17.80

NR n2(NSA)							
Normal power&Receiver off-Main Ant2				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				370500/1852.5	376000/1880	381500/1907.5	
5MHz	DFT-s-OFDM BPSK	1	1	23.29	23.55	23.54	24.80
		1	23	23.39	23.48	23.70	24.80
		12	6	23.55	23.64	23.89	24.80
		25	0	23.05	23.25	23.28	23.80
	DFT-s-OFDM QPSK	1	1	23.32	23.60	23.61	24.80
		1	23	23.47	23.58	23.80	24.80
		12	6	23.47	23.74	23.89	24.80
		25	0	22.86	22.86	23.00	23.80
	DFT-s-OFDM 16QAM	1	1	22.04	22.15	22.35	22.80
		1	23	22.16	22.22	22.51	22.80
		12	6	22.46	22.58	22.77	22.80
	DFT-s-OFDM 64QAM	1	1	20.85	20.89	21.05	21.80
		1	23	20.94	20.98	21.18	21.80
		12	6	21.08	21.17	21.33	21.80
	DFT-s-OFDM 256QAM	1	1	19.26	19.29	19.49	20.30
		1	23	19.37	19.25	19.60	20.30
		12	6	19.05	19.14	19.25	20.30
	CP-OFDM QPSK	1	1	21.93	21.99	22.09	22.80
	CP-OFDM 16QAM	1	1	21.70	21.80	21.94	22.80
	CP-OFDM 64QAM	1	1	19.93	20.14	20.18	21.30
	CP-OFDM 256QAM	1	1	16.74	16.96	17.02	17.80

Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				371000/1855	376000/1880	381000/1905	
10MHz	DFT-s-OFDM BPSK	1	1	23.16	23.30	23.38	24.80
		1	50	23.31	23.34	23.56	24.80
		25	12	23.39	23.45	23.67	24.80
		50	0	22.90	22.98	23.07	23.80
	DFT-s-OFDM QPSK	1	1	23.18	23.34	23.39	24.80
		1	50	23.29	23.36	23.57	24.80
		25	12	23.36	23.48	23.64	24.80
		50	0	22.93	23.02	22.99	23.80
	DFT-s-OFDM 16QAM	1	1	21.93	22.02	22.17	22.80
		1	50	22.01	22.01	22.35	22.80
		25	12	22.29	22.41	22.60	22.80
	DFT-s-OFDM 64QAM	1	1	20.66	20.67	20.83	21.80
		1	50	20.79	20.71	20.97	21.80
		25	12	20.94	20.91	21.11	21.80
	DFT-s-OFDM 256QAM	1	1	19.04	19.10	19.27	20.30
		1	50	19.19	19.12	19.42	20.30
		25	12	18.90	18.93	19.09	20.30
	CP-OFDM QPSK	1	1	21.76	21.82	21.92	22.80
	CP-OFDM 16QAM	1	1	21.51	21.58	21.72	22.80
	CP-OFDM 64QAM	1	1	19.78	19.87	19.97	21.30
	CP-OFDM 256QAM	1	1	16.60	16.70	16.80	17.80
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				371500/1857.5	376000/1880	380500/1902.5	
15MHz	DFT-s-OFDM BPSK	1	1	23.24	23.46	23.48	24.80
		1	77	23.37	23.44	23.66	24.80
		36	18	23.49	23.57	23.81	24.80
		75	0	23.00	23.16	23.21	23.80
	DFT-s-OFDM QPSK	1	1	23.28	23.52	23.53	24.80
		1	77	23.41	23.52	23.73	24.80
		36	18	23.46	23.66	23.82	24.80
		75	0	22.81	22.84	22.92	23.80
	DFT-s-OFDM 16QAM	1	1	22.03	22.12	22.29	22.80
		1	77	22.11	22.15	22.45	22.80
		36	18	22.41	22.53	22.72	22.80
	DFT-s-OFDM 64QAM	1	1	20.78	20.81	20.97	21.80
		1	77	20.89	20.89	21.11	21.80
		36	18	21.04	21.09	21.25	21.80

	DFT-s-OFDM 256QAM	1	1	19.18	19.22	19.41	20.30
		1	77	19.31	19.22	19.54	20.30
		36	18	19.00	19.07	19.19	20.30
	CP-OFDM QPSK	1	1	21.88	21.94	22.04	22.80
	CP-OFDM 16QAM	1	1	21.63	21.72	21.86	22.80
	CP-OFDM 64QAM	1	1	19.88	20.05	20.11	21.30
	CP-OFDM 256QAM	1	1	16.70	16.88	16.94	17.80
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				372000/1860	376000/1880	380000/1900	
20MHz	DFT-s-OFDM BPSK	1	1	23.13	23.26	23.35	24.80
		1	104	23.30	23.30	23.54	24.80
		50	25	23.37	23.44	23.64	24.80
		100	0	22.87	22.93	23.03	23.80
	DFT-s-OFDM QPSK	1	1	23.16	23.30	23.36	24.80
		1	104	**23.26**	**23.31**	**23.53**	24.80
		50	25	23.33	23.43	**23.60**	24.80
		100	0	22.91	22.93	**22.95**	23.80
	DFT-s-OFDM 16QAM	1	1	21.90	22.00	22.13	22.80
		1	104	21.98	21.98	22.33	22.80
		50	25	22.26	22.37	22.57	22.80
	DFT-s-OFDM 64QAM	1	1	20.63	20.65	20.80	21.80
		1	104	20.76	20.66	20.93	21.80
		50	25	20.92	20.87	21.08	21.80
	DFT-s-OFDM 256QAM	1	1	19.02	19.06	19.22	20.30
		1	104	19.15	19.10	19.38	20.30
		50	25	18.84	18.87	19.03	20.30
	CP-OFDM QPSK	1	1	21.71	21.74	21.85	22.80
	CP-OFDM 16QAM	1	1	21.47	21.54	21.66	22.80
	CP-OFDM 64QAM	1	1	19.75	19.82	19.93	21.30
	CP-OFDM 256QAM	1	1	16.58	16.66	16.77	17.80

NR n2(NSA)							
Receiver on-Main Ant2				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				370500/1852.5	376000/1880	381500/1907.5	
5MHz	DFT-s-OFDM BPSK	1	1	18.21	18.16	17.86	19.00
		1	23	17.90	18.11	18.11	19.00
		12	6	17.98	18.23	18.25	19.00
		25	0	18.14	18.30	17.90	19.00
	DFT-s-OFDM QPSK	1	1	18.10	18.13	17.98	19.00
		1	23	18.16	18.14	18.07	19.00
		12	6	18.08	18.32	18.21	19.00
		25	0	17.89	18.22	17.98	19.00
	DFT-s-OFDM 16QAM	1	1	17.84	17.83	17.97	19.00
		1	23	18.01	17.90	18.12	19.00
		12	6	18.06	18.25	18.11	19.00
	DFT-s-OFDM 64QAM	1	1	17.78	17.92	18.24	19.00
		1	23	17.77	18.02	17.90	19.00
		12	6	18.31	18.28	18.03	19.00
	DFT-s-OFDM 256QAM	1	1	18.23	18.53	18.20	19.00
		1	23	18.38	18.47	18.00	19.00
		12	6	18.20	18.33	18.10	19.00
	CP-OFDM QPSK	1	1	17.90	18.23	18.04	19.00
	CP-OFDM 16QAM	1	1	17.98	18.46	18.31	19.00
	CP-OFDM 64QAM	1	1	17.88	18.29	18.18	19.00
	CP-OFDM 256QAM	1	1	16.60	16.58	16.83	17.80
Bandwidth	Modulation	RB allocation	offset	16.6			Tune-up
				371000/1855	376000/1880	381000/1905	
10MHz	DFT-s-OFDM BPSK	1	1	18.13	18.03	17.77	19.00
		1	50	17.87	18.03	18.05	19.00
		25	12	17.90	18.15	18.14	19.00
		50	0	18.06	18.16	17.79	19.00
	DFT-s-OFDM QPSK	1	1	18.04	18.01	17.87	19.00
		1	50	18.07	18.03	17.96	19.00
		25	12	18.04	18.19	18.10	19.00
		50	0	17.85	18.11	17.85	19.00
	DFT-s-OFDM 16QAM	1	1	17.80	17.78	17.87	19.00
		1	50	17.93	17.80	18.04	19.00
		25	12	17.98	18.16	18.03	19.00

	DFT-s-OFDM 64QAM	1	1	17.68	17.82	18.13	19.00
		1	50	17.69	17.88	17.79	19.00
		25	12	18.25	18.16	17.92	19.00
	DFT-s-OFDM 256QAM	1	1	18.13	18.42	18.07	19.00
		1	50	18.28	18.42	17.90	19.00
		25	12	18.09	18.20	17.98	19.00
	CP-OFDM QPSK	1	1	17.80	18.10	17.92	19.00
	CP-OFDM 16QAM	1	1	17.87	18.34	18.17	19.00
	CP-OFDM 64QAM	1	1	17.80	18.15	18.07	19.00
	CP-OFDM 256QAM	1	1	16.54	16.46	16.72	17.80
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				371500/1857.5	376000/1880	380500/1902.5	
15MHz	DFT-s-OFDM BPSK	1	1	18.17	18.11	17.82	19.00
		1	77	17.90	18.08	18.10	19.00
		36	18	17.95	18.21	18.21	19.00
		75	0	18.11	18.25	17.86	19.00
	DFT-s-OFDM QPSK	1	1	18.09	18.10	17.94	19.00
		1	77	18.13	18.11	18.04	19.00
		36	18	18.09	18.28	18.19	19.00
		75	0	17.90	18.17	17.92	19.00
	DFT-s-OFDM 16QAM	1	1	17.85	17.83	17.93	19.00
		1	77	17.98	17.87	18.09	19.00
		36	18	18.04	18.22	18.09	19.00
	DFT-s-OFDM 64QAM	1	1	17.74	17.89	18.20	19.00
		1	77	17.74	17.97	17.86	19.00
		36	18	18.30	18.25	17.99	19.00
	DFT-s-OFDM 256QAM	1	1	18.20	18.48	18.14	19.00
		1	77	18.34	18.47	17.96	19.00
		36	18	18.14	18.27	18.03	19.00
	CP-OFDM QPSK	1	1	17.86	18.16	17.98	19.00
	CP-OFDM 16QAM	1	1	17.93	18.41	18.24	19.00
	CP-OFDM 64QAM	1	1	17.85	18.24	18.14	19.00
	CP-OFDM 256QAM	1	1	16.59	16.55	16.79	17.80

Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				372000/1860	376000/1880	380000/1900	
20MHz	DFT-s-OFDM BPSK	1	1	18.10	17.99	17.74	19.00
		1	104	17.86	17.99	18.03	19.00
		50	25	17.88	18.14	18.11	19.00
		100	0	18.03	18.11	17.75	19.00
	DFT-s-OFDM QPSK	1	1	18.02	17.97	17.84	19.00
		1	104	**18.04**	**17.98**	**17.92**	19.00
		50	25	18.01	**18.14**	18.06	19.00
		100	0	17.82	**18.07**	17.80	19.00
	DFT-s-OFDM 16QAM	1	1	17.77	17.76	17.83	19.00
		1	104	17.90	17.77	18.02	19.00
		50	25	17.95	18.12	18.00	19.00
	DFT-s-OFDM 64QAM	1	1	17.65	17.80	18.10	19.00
		1	104	17.66	17.83	17.75	19.00
		50	25	18.23	18.12	17.89	19.00
	DFT-s-OFDM 256QAM	1	1	18.11	18.38	18.02	19.00
		1	104	18.24	18.40	17.86	19.00
		50	25	18.03	18.14	17.92	19.00
	CP-OFDM QPSK	1	1	17.75	18.02	17.85	19.00
	CP-OFDM 16QAM	1	1	17.83	18.30	18.11	19.00
	CP-OFDM 64QAM	1	1	17.77	18.10	18.03	19.00
	CP-OFDM 256QAM	1	1	16.52	16.42	16.69	17.80

NR n2(NSA)							
Hotspot on-Main Ant2				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				370500/1852.5	376000/1880	381500/1907.5	
5MHz	DFT-s-OFDM BPSK	1	1	19.98	20.14	20.18	21.00
		1	23	20.13	20.19	20.38	21.00
		12	6	20.16	20.27	20.44	21.00
		25	0	20.15	20.32	20.39	21.00
	DFT-s-OFDM QPSK	1	1	19.92	20.14	20.19	21.00
		1	23	20.15	20.17	20.38	21.00
		12	6	20.17	20.31	20.41	21.00
		25	0	20.20	20.30	20.40	21.00
	DFT-s-OFDM 16QAM	1	1	19.70	19.89	19.96	21.00
		1	23	19.83	19.91	20.11	21.00

		12	6	20.11	20.31	20.39	21.00
	DFT-s-OFDM 64QAM	1	1	19.71	19.93	20.01	21.00
		1	23	19.85	19.99	20.20	21.00
		12	6	20.07	20.32	20.40	21.00
	DFT-s-OFDM 256QAM	1	1	18.73	19.02	19.09	20.00
		1	23	18.94	19.03	19.25	20.00
		12	6	18.59	18.79	18.90	20.00
	CP-OFDM QPSK	1	1	19.91	20.21	20.25	21.00
	CP-OFDM 16QAM	1	1	19.49	20.45	20.53	21.00
	CP-OFDM 64QAM	1	1	19.48	19.76	19.82	21.00
	CP-OFDM 256QAM	1	1	16.30	16.57	16.62	17.80
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				371000/1855	376000/1880	381000/1905	
10MHz	DFT-s-OFDM BPSK	1	1	20.07	20.31	20.29	21.00
		1	50	20.18	20.28	20.47	21.00
		25	12	20.27	20.40	20.59	21.00
		50	0	20.25	20.50	20.53	21.00
	DFT-s-OFDM QPSK	1	1	20.01	20.31	20.34	21.00
		1	50	20.27	20.31	20.53	21.00
		25	12	20.23	20.48	20.57	21.00
		50	0	20.26	20.43	20.55	21.00
	DFT-s-OFDM 16QAM	1	1	19.76	19.97	20.08	21.00
		1	50	19.93	20.05	20.22	21.00
		25	12	20.22	20.42	20.50	21.00
	DFT-s-OFDM 64QAM	1	1	19.84	20.08	20.16	21.00
		1	50	19.95	20.17	20.34	21.00
		25	12	20.16	20.49	20.55	21.00
	DFT-s-OFDM 256QAM	1	1	18.88	19.15	19.24	20.00
		1	50	19.06	19.11	19.37	20.00
		25	12	18.69	18.93	19.01	20.00
	CP-OFDM QPSK	1	1	20.02	20.32	20.36	21.00
	CP-OFDM 16QAM	1	1	19.62	20.60	20.68	21.00
	CP-OFDM 64QAM	1	1	19.58	19.94	19.96	21.00
	CP-OFDM 256QAM	1	1	16.39	16.74	16.77	17.80

Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				371500/1857.5	376000/1880	380500/1902.5	
15MHz	DFT-s-OFDM BPSK	1	1	20.03	20.23	20.24	21.00
		1	77	20.15	20.23	20.42	21.00
		36	18	20.22	20.34	20.52	21.00
		75	0	20.20	20.41	20.46	21.00
	DFT-s-OFDM QPSK	1	1	19.96	20.22	20.27	21.00
		1	77	20.21	20.23	20.45	21.00
		36	18	20.18	20.39	20.48	21.00
		75	0	20.21	20.37	20.48	21.00
	DFT-s-OFDM 16QAM	1	1	19.71	19.92	20.02	21.00
		1	77	19.88	19.98	20.17	21.00
		36	18	20.16	20.36	20.44	21.00
	DFT-s-OFDM 64QAM	1	1	19.78	20.01	20.09	21.00
		1	77	19.90	20.08	20.27	21.00
		36	18	20.11	20.40	20.48	21.00
	DFT-s-OFDM 256QAM	1	1	18.81	19.09	19.17	20.00
		1	77	19.00	19.06	19.31	20.00
		36	18	18.64	18.86	18.96	20.00
	CP-OFDM QPSK	1	1	19.96	20.26	20.30	21.00
	CP-OFDM 16QAM	1	1	19.56	20.53	20.61	21.00
	CP-OFDM 64QAM	1	1	19.53	19.85	19.89	21.00
	CP-OFDM 256QAM	1	1	16.34	16.65	16.70	17.80
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				372000/1860	376000/1880	380000/1900	
20MHz	DFT-s-OFDM BPSK	1	1	19.95	20.10	20.15	21.00
		1	104	20.12	20.15	20.36	21.00
		50	25	20.14	20.26	20.41	21.00
		100	0	20.12	20.27	20.35	21.00
	DFT-s-OFDM QPSK	1	1	19.90	20.10	20.16	21.00
		1	104	**20.12**	**20.12**	**20.34**	21.00
		50	25	20.14	20.26	**20.37**	21.00
		100	0	20.17	20.26	**20.35**	21.00
	DFT-s-OFDM 16QAM	1	1	19.67	19.87	19.92	21.00
		1	104	19.80	19.88	20.09	21.00
		50	25	20.08	20.27	20.36	21.00
	DFT-s-OFDM 64QAM	1	1	19.68	19.91	19.98	21.00
		1	104	19.82	19.94	20.16	21.00
		50	25	20.05	20.28	20.37	21.00

	DFT-s-OFDM 256QAM	1	1	18.71	18.98	19.04	20.00
		1	104	18.90	19.01	19.21	20.00
		50	25	18.53	18.73	18.84	20.00
	CP-OFDM QPSK	1	1	19.86	20.13	20.18	21.00
	CP-OFDM 16QAM	1	1	19.45	20.41	20.47	21.00
	CP-OFDM 64QAM	1	1	19.45	19.71	19.78	21.00
	CP-OFDM 256QAM	1	1	16.28	16.53	16.59	17.80

NR n5(SA)							
Normal power&Receiver off&Hotspot on-Main Ant0				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				165300/826.5	167300/836.5	169300/846.5	
5MHz	DFT-s-OFDM BPSK	1	1	23.19	23.29	23.27	24.50
		1	23	23.28	23.31	23.33	24.50
		12	6	23.48	23.48	23.48	24.50
		25	0	22.93	22.95	22.88	24.00
	DFT-s-OFDM QPSK	1	1	23.17	23.24	23.28	24.50
		1	23	23.24	23.24	23.29	24.50
		12	6	23.39	23.48	23.44	24.50
		25	0	22.63	22.66	22.60	23.50
	DFT-s-OFDM 16QAM	1	1	21.89	21.93	22.00	23.00
		1	23	21.97	22.01	22.02	23.00
		12	6	22.43	22.43	22.42	23.00
	DFT-s-OFDM 64QAM	1	1	20.50	20.54	20.56	21.50
		1	23	20.51	20.59	20.55	21.50
		12	6	20.93	20.97	20.97	21.50
	DFT-s-OFDM 256QAM	1	1	19.17	19.22	19.23	20.00
		1	23	19.21	19.09	19.11	20.00
		12	6	19.04	19.09	19.06	20.00
	CP-OFDM QPSK	1	1	21.75	21.75	21.79	22.50
	CP-OFDM 16QAM	1	1	21.51	21.57	21.61	22.50
	CP-OFDM 64QAM	1	1	19.78	19.88	19.89	21.00
	CP-OFDM 256QAM	1	1	16.74	16.78	16.75	17.50

Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				165800/829	167300/836.5	168800/844	
10MHz	DFT-s-OFDM BPSK	1	1	23.33	23.55	23.44	24.50
		1	50	23.35	23.44	23.46	24.50
		25	12	23.65	23.68	23.71	24.50
		50	0	23.08	23.22	23.09	24.00
	DFT-s-OFDM QPSK	1	1	23.30	23.49	23.51	24.50
		1	50	23.42	23.44	23.51	24.50
		25	12	23.46	23.73	23.67	24.50
		50	0	22.70	22.86	22.83	23.50
	DFT-s-OFDM 16QAM	1	1	21.96	22.04	22.18	23.00
		1	50	22.12	22.22	22.19	23.00
		25	12	22.46	22.34	22.38	23.00
	DFT-s-OFDM 64QAM	1	1	20.70	20.77	20.79	21.50
		1	50	20.66	20.86	20.76	21.50
		25	12	21.06	21.22	21.20	21.50
	DFT-s-OFDM 256QAM	1	1	19.40	19.42	19.46	20.00
		1	50	19.39	19.20	19.29	20.00
		25	12	19.19	19.30	19.23	20.00
	CP-OFDM QPSK	1	1	21.91	21.91	21.95	22.50
	CP-OFDM 16QAM	1	1	21.71	21.80	21.84	22.50
	CP-OFDM 64QAM	1	1	19.93	20.15	20.10	21.00
	CP-OFDM 256QAM	1	1	16.87	17.03	16.98	17.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				166300/831.5	167300/836.5	168300/841.5	
15MHz	DFT-s-OFDM BPSK	1	1	23.28	23.46	23.38	24.50
		1	77	23.33	23.40	23.42	24.50
		36	18	23.59	23.61	23.63	24.50
		75	0	23.03	23.13	23.02	24.00
	DFT-s-OFDM QPSK	1	1	23.26	23.41	23.43	24.50
		1	77	23.36	23.38	23.44	24.50
		36	18	23.45	23.65	23.60	24.50
		75	0	22.69	22.79	22.75	23.50
	DFT-s-OFDM 16QAM	1	1	21.95	22.01	22.12	23.00
		1	77	22.07	22.15	22.13	23.00
		36	18	22.44	22.40	22.37	23.00
	DFT-s-OFDM 64QAM	1	1	20.63	20.69	20.71	21.50
		1	77	20.61	20.77	20.69	21.50
		36	18	21.02	21.14	21.12	21.50

	DFT-s-OFDM 256QAM	1	1	19.32	19.35	19.38	20.00
		1	77	19.33	19.17	19.23	20.00
		36	18	19.14	19.23	19.17	20.00
	CP-OFDM QPSK	1	1	21.86	21.86	21.90	22.50
	CP-OFDM 16QAM	1	1	21.64	21.72	21.76	22.50
	CP-OFDM 64QAM	1	1	19.88	20.06	20.03	21.00
	CP-OFDM 256QAM	1	1	16.83	16.95	16.90	17.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				166800/834	167300/836.5	167800/839	
20MHz	DFT-s-OFDM BPSK	1	1	23.14	23.20	23.21	24.50
		1	104	23.26	23.27	23.29	24.50
		50	25	23.42	23.41	23.40	24.50
		100	0	22.88	22.86	22.81	24.00
	DFT-s-OFDM QPSK	1	1	23.13	23.16	23.20	24.50
		1	104	**23.18**	**23.18**	**23.22**	24.50
		50	25	**23.40**	**23.40**	23.37	24.50
		100	0	**22.62**	22.59	22.52	23.50
	DFT-s-OFDM 16QAM	1	1	21.88	21.90	21.94	23.00
		1	104	21.92	21.94	21.96	23.00
		50	25	22.38	22.38	22.37	23.00
	DFT-s-OFDM 64QAM	1	1	20.43	20.46	20.48	21.50
		1	104	20.46	20.50	20.48	21.50
		50	25	20.89	20.89	20.89	21.50
	DFT-s-OFDM 256QAM	1	1	19.09	19.15	19.15	20.00
		1	104	19.15	19.06	19.05	20.00
		50	25	18.99	19.02	19.00	20.00
	CP-OFDM QPSK	1	1	21.70	21.70	21.74	22.50
	CP-OFDM 16QAM	1	1	21.44	21.49	21.53	22.50
	CP-OFDM 64QAM	1	1	19.73	19.79	19.82	21.00
	CP-OFDM 256QAM	1	1	16.70	16.70	16.67	17.50

NR n5(SA)							
Receiver on-Main Ant0				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				165300/826.5	167300/836.5	169300/846.5	
5MHz	DFT-s-OFDM BPSK	1	1	21.86	22.02	21.96	22.50
		1	23	21.97	22.12	22.21	22.50
		12	6	22.16	22.12	22.19	22.50
		25	0	21.90	21.88	21.92	22.50
	DFT-s-OFDM QPSK	1	1	21.87	22.05	22.03	22.50
		1	23	22.02	22.13	22.20	22.50
		12	6	22.15	22.25	22.21	22.50
		25	0	22.15	22.06	22.04	22.50
	DFT-s-OFDM 16QAM	1	1	21.66	21.75	21.77	22.50
		1	23	21.76	21.87	21.88	22.50
		12	6	22.19	22.13	22.13	22.50
	DFT-s-OFDM 64QAM	1	1	20.67	20.84	20.79	21.50
		1	23	20.78	20.94	20.91	21.50
		12	6	21.14	21.18	21.15	21.50
	DFT-s-OFDM 256QAM	1	1	19.42	19.43	19.54	20.00
		1	23	19.32	19.37	19.47	20.00
		12	6	19.32	19.31	19.23	20.00
	CP-OFDM QPSK	1	1	22.00	22.02	22.10	22.50
	CP-OFDM 16QAM	1	1	21.79	21.84	21.89	22.50
	CP-OFDM 64QAM	1	1	20.21	20.21	20.14	21.00
	CP-OFDM 256QAM	1	1	16.85	16.95	17.00	17.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				165800/829	167300/836.5	168800/844	
10MHz	DFT-s-OFDM BPSK	1	1	21.81	21.90	21.89	22.50
		1	50	21.92	22.06	22.13	22.50
		25	12	22.08	22.01	22.08	22.50
		50	0	21.83	21.75	21.93	22.50
	DFT-s-OFDM QPSK	1	1	21.79	21.91	21.92	22.50
		1	50	21.93	22.02	22.08	22.50
		25	12	22.08	22.12	22.07	22.50
		50	0	22.08	21.98	21.95	22.50
	DFT-s-OFDM 16QAM	1	1	21.59	21.67	21.69	22.50
		1	50	21.69	21.76	21.80	22.50
		25	12	22.10	22.05	22.04	22.50

	DFT-s-OFDM 64QAM	1	1	20.58	20.72	20.68	21.50
		1	50	20.71	20.81	20.81	21.50
		25	12	21.06	21.04	21.04	21.50
	DFT-s-OFDM 256QAM	1	1	19.30	19.35	19.45	20.00
		1	50	19.24	19.29	19.39	20.00
		25	12	19.28	19.23	19.19	20.00
	CP-OFDM QPSK	1	1	21.93	21.98	22.05	22.50
	CP-OFDM 16QAM	1	1	21.71	21.74	21.81	22.50
	CP-OFDM 64QAM	1	1	20.14	20.08	20.04	21.00
	CP-OFDM 256QAM	1	1	16.77	16.81	16.89	17.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				166300/831.5	167300/836.5	168300/841.5	
15MHz	DFT-s-OFDM BPSK	1	1	21.85	21.98	21.94	22.50
		1	77	21.95	22.11	22.18	22.50
		36	18	22.13	22.07	22.15	22.50
		75	0	21.88	21.84	21.85	22.50
	DFT-s-OFDM QPSK	1	1	21.84	22.00	21.99	22.50
		1	77	21.99	22.10	22.16	22.50
		36	18	22.13	22.21	22.16	22.50
		75	0	22.13	22.04	22.02	22.50
	DFT-s-OFDM 16QAM	1	1	21.64	21.72	21.75	22.50
		1	77	21.74	21.83	21.85	22.50
		36	18	22.16	22.11	22.10	22.50
	DFT-s-OFDM 64QAM	1	1	20.64	20.79	20.75	21.50
		1	77	20.76	20.90	20.88	21.50
		36	18	21.11	21.13	21.11	21.50
	DFT-s-OFDM 256QAM	1	1	19.37	19.41	19.52	20.00
		1	77	19.30	19.34	19.45	20.00
		36	18	19.33	19.30	19.24	20.00
	CP-OFDM QPSK	1	1	21.99	22.04	22.11	22.50
	CP-OFDM 16QAM	1	1	21.77	21.81	21.88	22.50
	CP-OFDM 64QAM	1	1	20.19	20.17	20.11	21.00
	CP-OFDM 256QAM	1	1	16.82	16.90	16.96	17.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				166800/834	167300/836.5	167800/839	

20MHz	DFT-s-OFDM BPSK	1	1	21.78	21.86	21.86	22.50
		1	104	21.91	22.02	22.11	22.50
		50	25	22.06	22.00	22.05	22.50
		100	0	21.80	21.70	21.89	22.50
	DFT-s-OFDM QPSK	1	1	21.77	21.87	21.89	22.50
		1	104	**21.90**	**21.97**	**22.04**	22.50
		50	25	22.05	**22.07**	22.03	22.50
		100	0	**22.05**	21.94	21.90	22.50
	DFT-s-OFDM 16QAM	1	1	21.56	21.65	21.65	22.50
		1	104	21.66	21.73	21.78	22.50
		50	25	22.07	22.01	22.01	22.50
	DFT-s-OFDM 64QAM	1	1	20.55	20.70	20.65	21.50
		1	104	20.68	20.76	20.77	21.50
		50	25	21.04	21.00	21.01	21.50
	DFT-s-OFDM 256QAM	1	1	19.28	19.31	19.40	20.00
		1	104	19.20	19.27	19.35	20.00
		50	25	19.22	19.17	19.13	20.00
	CP-OFDM QPSK	1	1	21.88	21.90	21.98	22.50
	CP-OFDM 16QAM	1	1	21.67	21.70	21.75	22.50
	CP-OFDM 64QAM	1	1	20.11	20.03	20.00	21.00
	CP-OFDM 256QAM	1	1	16.75	16.77	16.86	17.50

NR n5(NSA)							
Normal power & Receiver off & Hotspot on-Main Ant0				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				165300/826.5	167300/836.5	169300/846.5	
5MHz	DFT-s-OFDM BPSK	1	1	23.19	23.29	23.27	24.50
		1	23	23.28	23.31	23.33	24.50
		12	6	23.48	23.48	23.48	24.50
		25	0	22.93	22.95	22.88	23.50
	DFT-s-OFDM QPSK	1	1	23.17	23.24	23.28	24.50
		1	23	23.24	23.24	23.29	24.50
		12	6	23.39	23.48	23.44	24.50
		25	0	22.63	22.66	22.60	23.50
	DFT-s-OFDM 16QAM	1	1	21.89	21.93	22.00	22.50
		1	23	21.97	22.01	22.02	22.50
		12	6	22.43	22.43	22.42	22.50
	DFT-s-OFDM	1	1	20.50	20.54	20.56	21.50

	64QAM	1	23	20.51	20.59	20.55	21.50
		12	6	20.93	20.97	20.97	21.50
	DFT-s-OFDM 256QAM	1	1	19.17	19.22	19.23	20.00
		1	23	19.21	19.09	19.11	20.00
		12	6	19.04	19.09	19.06	20.00
	CP-OFDM QPSK	1	1	21.75	21.75	21.79	22.50
	CP-OFDM 16QAM	1	1	21.51	21.57	21.61	22.50
	CP-OFDM 64QAM	1	1	19.78	19.88	19.89	21.00
	CP-OFDM 256QAM	1	1	16.74	16.78	16.75	17.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				165800/829	167300/836.5	168800/844	
10MHz	DFT-s-OFDM BPSK	1	1	23.33	23.55	23.44	24.50
		1	50	23.35	23.44	23.46	24.50
		25	12	23.65	23.68	23.71	24.50
		50	0	23.08	23.22	23.09	23.50
	DFT-s-OFDM QPSK	1	1	23.30	23.49	23.51	24.50
		1	50	23.42	23.44	23.51	24.50
		25	12	23.46	23.73	23.67	24.50
		50	0	22.70	22.86	22.83	23.50
	DFT-s-OFDM 16QAM	1	1	21.96	22.04	22.18	22.50
		1	50	22.12	22.22	22.19	22.50
		25	12	22.46	22.34	22.38	22.50
	DFT-s-OFDM 64QAM	1	1	20.70	20.77	20.79	21.50
		1	50	20.66	20.86	20.76	21.50
		25	12	21.06	21.22	21.20	21.50
	DFT-s-OFDM 256QAM	1	1	19.40	19.42	19.46	20.00
		1	50	19.39	19.20	19.29	20.00
		25	12	19.19	19.30	19.23	20.00
	CP-OFDM QPSK	1	1	21.91	21.91	21.95	22.50
	CP-OFDM 16QAM	1	1	21.71	21.80	21.84	22.50
	CP-OFDM 64QAM	1	1	19.93	20.15	20.10	21.00
	CP-OFDM 256QAM	1	1	16.87	17.03	16.98	17.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				166300/831.5	167300/836.5	168300/841.5	
15MHz	DFT-s-OFDM	1	1	23.28	23.46	23.38	24.50

	BPSK	1	77	23.33	23.40	23.42	24.50
		36	18	23.59	23.61	23.63	24.50
		75	0	23.03	23.13	23.02	23.50
	DFT-s-OFDM QPSK	1	1	23.26	23.41	23.43	24.50
		1	77	23.36	23.38	23.44	24.50
		36	18	23.45	23.65	23.60	24.50
		75	0	22.69	22.79	22.75	23.50
	DFT-s-OFDM 16QAM	1	1	21.95	22.01	22.12	22.50
		1	77	22.07	22.15	22.13	22.50
		36	18	22.44	22.40	22.37	22.50
	DFT-s-OFDM 64QAM	1	1	20.63	20.69	20.71	21.50
		1	77	20.61	20.77	20.69	21.50
		36	18	21.02	21.14	21.12	21.50
	DFT-s-OFDM 256QAM	1	1	19.32	19.35	19.38	20.00
		1	77	19.33	19.17	19.23	20.00
		36	18	19.14	19.23	19.17	20.00
	CP-OFDM QPSK	1	1	21.86	21.86	21.90	22.50
	CP-OFDM 16QAM	1	1	21.64	21.72	21.76	22.50
	CP-OFDM 64QAM	1	1	19.88	20.06	20.03	21.00
	CP-OFDM 256QAM	1	1	16.83	16.95	16.90	17.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				166800/834	167300/836.5	167800/839	
20MHz	DFT-s-OFDM BPSK	1	1	23.14	23.20	23.21	24.50
		1	104	23.26	23.27	23.29	24.50
		50	25	23.42	23.41	23.40	24.50
		100	0	22.88	22.86	22.81	23.50
	DFT-s-OFDM QPSK	1	1	23.13	23.16	23.20	24.50
		1	104	**23.18**	**23.18**	**23.22**	24.50
		50	25	**23.40**	**23.40**	23.37	24.50
		100	0	**22.62**	22.59	22.52	23.50
	DFT-s-OFDM 16QAM	1	1	21.88	21.90	21.94	22.50
		1	104	21.92	21.94	21.96	22.50
		50	25	22.38	22.38	22.37	22.50
	DFT-s-OFDM 64QAM	1	1	20.43	20.46	20.48	21.50
		1	104	20.46	20.50	20.48	21.50
		50	25	20.89	20.89	20.89	21.50
	DFT-s-OFDM 256QAM	1	1	19.09	19.15	19.15	20.00
		1	104	19.15	19.06	19.05	20.00
		50	25	18.99	19.02	19.00	20.00

	CP-OFDM QPSK	1	1	21.70	21.70	21.74	22.50
	CP-OFDM 16QAM	1	1	21.44	21.49	21.53	22.50
	CP-OFDM 64QAM	1	1	19.73	19.79	19.82	21.00
	CP-OFDM 256QAM	1	1	16.70	16.70	16.67	17.50

NR n5(NSA)							
Receiver on-Main Ant0				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				165300/826.5	167300/836.5	169300/846.5	
5MHz	DFT-s-OFDM BPSK	1	1	20.07	20.06	20.10	21.00
		1	23	20.07	20.08	20.10	21.00
		12	6	20.34	20.26	20.40	21.00
		25	0	20.32	20.31	20.37	21.00
	DFT-s-OFDM QPSK	1	1	20.14	20.12	20.19	21.00
		1	23	20.14	20.11	20.17	21.00
		12	6	20.34	20.33	20.40	21.00
		25	0	20.33	20.27	20.38	21.00
	DFT-s-OFDM 16QAM	1	1	19.85	19.78	19.88	21.00
		1	23	19.89	19.85	19.90	21.00
		12	6	20.32	20.28	20.35	21.00
	DFT-s-OFDM 64QAM	1	1	19.96	19.88	20.01	21.00
		1	23	19.95	19.94	20.00	21.00
		12	6	20.37	20.35	20.42	21.00
	DFT-s-OFDM 256QAM	1	1	19.19	19.12	19.27	20.00
		1	23	19.02	18.93	19.05	20.00
		12	6	19.00	18.96	19.06	20.00
	CP-OFDM QPSK	1	1	20.19	20.17	20.24	21.00
	CP-OFDM 16QAM	1	1	20.49	20.42	20.56	21.00
	CP-OFDM 64QAM	1	1	19.77	19.76	19.82	21.00
	CP-OFDM 256QAM	1	1	16.62	16.60	16.67	17.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				165800/829	167300/836.5	168800/844	
10MHz	DFT-s-OFDM BPSK	1	1	20.03	19.98	20.05	21.00
		1	50	20.04	20.03	20.05	21.00
		25	12	20.29	20.20	20.33	21.00

		50	0	20.27	20.22	20.30	21.00
	DFT-s-OFDM QPSK	1	1	20.09	20.03	20.12	21.00
		1	50	20.08	20.03	20.09	21.00
		25	12	20.29	20.24	20.31	21.00
		50	0	20.28	20.21	20.31	21.00
	DFT-s-OFDM 16QAM	1	1	19.80	19.73	19.82	21.00
		1	50	19.84	19.78	19.85	21.00
		25	12	20.26	20.22	20.29	21.00
	DFT-s-OFDM 64QAM	1	1	19.90	19.81	19.94	21.00
		1	50	19.90	19.85	19.93	21.00
		25	12	20.32	20.26	20.35	21.00
	DFT-s-OFDM 256QAM	1	1	19.12	19.06	19.20	20.00
		1	50	18.96	18.88	18.99	20.00
		25	12	18.95	18.89	19.01	20.00
	CP-OFDM QPSK	1	1	20.13	20.11	20.18	21.00
	CP-OFDM 16QAM	1	1	20.43	20.35	20.49	21.00
	CP-OFDM 64QAM	1	1	19.72	19.67	19.75	21.00
	CP-OFDM 256QAM	1	1	16.57	16.51	16.60	17.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				166300/831.5	167300/836.5	168300/841.5	
15MHz	DFT-s-OFDM BPSK	1	1	20.08	20.07	20.11	21.00
		1	77	20.06	20.07	20.09	21.00
		36	18	20.35	20.27	20.41	21.00
		75	0	20.32	20.31	20.37	21.00
	DFT-s-OFDM QPSK	1	1	20.13	20.11	20.20	21.00
		1	77	20.14	20.09	20.16	21.00
		36	18	20.30	20.32	20.38	21.00
		75	0	20.29	20.28	20.39	21.00
	DFT-s-OFDM 16QAM	1	1	19.81	19.76	19.88	21.00
		1	77	19.89	19.85	19.91	21.00
		36	18	20.31	20.27	20.34	21.00
	DFT-s-OFDM 64QAM	1	1	19.97	19.89	20.02	21.00
		1	77	19.95	19.94	20.00	21.00
		36	18	20.36	20.34	20.43	21.00
	DFT-s-OFDM 256QAM	1	1	19.20	19.13	19.28	20.00
		1	77	19.02	18.91	19.05	20.00
		36	18	19.00	18.96	19.07	20.00
	CP-OFDM QPSK	1	1	20.18	20.16	20.23	21.00

	CP-OFDM 16QAM	1	1	20.50	20.43	20.57	21.00
	CP-OFDM 64QAM	1	1	19.77	19.76	19.82	21.00
	CP-OFDM 256QAM	1	1	16.61	16.59	16.68	17.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				166800/834	167300/836.5	167800/839	
20MHz	DFT-s-OFDM BPSK	1	1	20.00	19.94	20.02	21.00
		1	104	20.03	19.99	20.03	21.00
		50	25	20.27	20.19	20.30	21.00
		100	0	20.24	20.17	20.26	21.00
	DFT-s-OFDM QPSK	1	1	**20.07**	**19.99**	**20.09**	21.00
		1	104	20.05	19.98	20.05	21.00
		50	25	20.26	20.19	**20.27**	21.00
		100	0	20.25	20.17	**20.26**	21.00
	DFT-s-OFDM 16QAM	1	1	19.77	19.71	19.78	21.00
		1	104	19.81	19.75	19.83	21.00
		50	25	20.23	20.18	20.26	21.00
	DFT-s-OFDM 64QAM	1	1	19.87	19.79	19.91	21.00
		1	104	19.87	19.80	19.89	21.00
		50	25	20.30	20.22	20.32	21.00
	DFT-s-OFDM 256QAM	1	1	19.10	19.02	19.15	20.00
		1	104	18.92	18.86	18.95	20.00
		50	25	18.89	18.83	18.95	20.00
	CP-OFDM QPSK	1	1	20.08	20.03	20.11	21.00
	CP-OFDM 16QAM	1	1	20.39	20.31	20.43	21.00
	CP-OFDM 64QAM	1	1	19.69	19.62	19.71	21.00
	CP-OFDM 256QAM	1	1	16.55	16.47	16.57	17.50

NR n25(SA)							
Normal power & Receiver off & Hotspot on-Main Ant2				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				370500/1852.5	376500/1882.5	382500/1912.5	
5MHz	DFT-s-OFDM BPSK	1	1	23.33	23.57	23.57	24.80
		1	23	23.38	23.54	23.57	24.80
		12	6	23.54	23.70	23.77	24.80
		25	0	23.02	23.23	23.30	23.80

	DFT-s-OFDM QPSK	1	1	23.30	23.53	23.59	24.80
		1	23	23.45	23.55	23.58	24.80
		12	6	23.48	23.74	23.75	24.80
		25	0	22.42	22.71	22.79	23.80
	DFT-s-OFDM 16QAM	1	1	22.01	22.16	22.34	22.80
		1	23	22.19	22.30	22.33	22.80
		12	6	22.51	22.62	22.68	22.80
	DFT-s-OFDM 64QAM	1	1	20.67	20.82	20.88	21.80
		1	23	20.71	20.89	20.91	21.80
		12	6	20.96	21.22	21.28	21.80
	DFT-s-OFDM 256QAM	1	1	19.21	19.35	19.44	20.30
		1	23	19.29	19.32	19.41	20.30
		12	6	19.00	19.15	19.18	20.30
	CP-OFDM QPSK	1	1	21.85	22.05	22.09	22.80
	CP-OFDM 16QAM	1	1	21.66	22.32	21.93	22.80
	CP-OFDM 64QAM	1	1	19.89	20.87	20.14	21.30
	CP-OFDM 256QAM	1	1	16.67	16.95	16.99	17.80
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				371000/1855	376500/1882.5	382000/1910	
10MHz	DFT-s-OFDM BPSK	1	1	23.17	23.37	23.39	24.80
		1	50	23.28	23.37	23.43	24.80
		25	12	23.38	23.52	23.57	24.80
		50	0	22.86	22.99	23.10	23.80
	DFT-s-OFDM QPSK	1	1	23.17	23.32	23.38	24.80
		1	50	23.29	23.37	23.38	24.80
		25	12	23.39	23.55	23.57	24.80
		50	0	22.33	22.51	22.58	23.80
	DFT-s-OFDM 16QAM	1	1	21.92	22.04	22.16	22.80
		1	50	22.03	22.13	22.16	22.80
		25	12	22.36	22.44	22.52	22.80
	DFT-s-OFDM 64QAM	1	1	20.49	20.62	20.68	21.80
		1	50	20.55	20.65	20.71	21.80
		25	12	20.83	21.01	21.07	21.80
	DFT-s-OFDM 256QAM	1	1	19.03	19.19	19.23	20.30
		1	50	19.11	19.24	19.23	20.30
		25	12	18.85	18.95	18.97	20.30
	CP-OFDM QPSK	1	1	21.68	21.83	21.93	22.80
	CP-OFDM	1	1	21.47	22.10	21.70	22.80

	16QAM						
	CP-OFDM 64QAM	1	1	19.73	20.63	19.94	21.30
	CP-OFDM 256QAM	1	1	16.54	16.74	16.78	17.80
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				371500/1857.5	376500/1882.5	38150/1907.5	
15MHz	DFT-s-OFDM BPSK	1	1	23.28	23.48	23.51	24.80
		1	77	23.36	23.50	23.53	24.80
		36	18	23.48	23.63	23.69	24.80
		75	0	22.97	23.14	23.23	23.80
	DFT-s-OFDM QPSK	1	1	23.26	23.45	23.51	24.80
		1	77	23.39	23.49	23.51	24.80
		36	18	23.47	23.66	23.68	24.80
		75	0	22.41	22.64	22.71	23.80
	DFT-s-OFDM 16QAM	1	1	22.00	22.13	22.28	22.80
		1	77	22.14	22.23	22.27	22.80
		36	18	22.46	22.57	22.63	22.80
	DFT-s-OFDM 64QAM	1	1	20.60	20.74	20.80	21.80
		1	77	20.66	20.80	20.84	21.80
		36	18	20.92	21.14	21.20	21.80
	DFT-s-OFDM 256QAM	1	1	19.13	19.28	19.36	20.30
		1	77	19.23	19.29	19.35	20.30
		36	18	18.95	19.08	19.12	20.30
	CP-OFDM QPSK	1	1	21.80	22.00	22.04	22.80
	CP-OFDM 16QAM	1	1	21.59	22.24	21.85	22.80
	CP-OFDM 64QAM	1	1	19.84	20.78	20.07	21.30
	CP-OFDM 256QAM	1	1	16.63	16.87	16.91	17.80
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				372000/1860	376500/1882.5	381000/1905	
20MHz	DFT-s-OFDM BPSK	1	1	23.20	23.35	23.42	24.80
		1	104	23.33	23.42	23.47	24.80
		50	25	23.40	23.55	23.58	24.80
		100	0	22.89	23.00	23.12	23.80
	DFT-s-OFDM QPSK	1	1	23.20	23.33	**23.40**	24.80
		1	104	**23.30**	**23.38**	**23.40**	24.80
		50	25	23.43	23.53	**23.57**	24.80
		100	0	22.37	22.53	**22.58**	23.80
	DFT-s-OFDM	1	1	21.96	22.08	22.18	22.80

	16QAM	1	104	22.06	22.13	22.19	22.80
		50	25	22.38	22.48	22.55	22.80
	DFT-s-OFDM 64QAM	1	1	20.50	20.64	20.69	21.80
		1	104	20.58	20.66	20.73	21.80
		50	25	20.86	21.02	21.09	21.80
	DFT-s-OFDM 256QAM	1	1	19.03	19.17	19.23	20.30
		1	104	19.13	19.24	19.25	20.30
		50	25	18.84	18.95	19.00	20.30
	CP-OFDM QPSK	1	1	21.70	21.87	21.92	22.80
	CP-OFDM 16QAM	1	1	21.48	22.12	21.71	22.80
	CP-OFDM 64QAM	1	1	19.76	20.64	19.96	21.30
	CP-OFDM 256QAM	1	1	16.57	16.75	16.80	17.80

NR n25(SA)							
Receiver on-Main Ant2				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				370500/1852.5	376500/1882.5	382500/1912.5	
5MHz	DFT-s-OFDM BPSK	1	1	18.11	18.05	18.10	19.00
		1	23	18.07	18.05	18.09	19.00
		12	6	18.30	18.19	18.29	19.00
		25	0	18.26	18.19	18.26	19.00
	DFT-s-OFDM QPSK	1	1	18.09	18.04	18.11	19.00
		1	23	18.20	18.06	18.17	19.00
		12	6	18.19	18.20	18.24	19.00
		25	0	18.20	18.19	18.26	19.00
	DFT-s-OFDM 16QAM	1	1	17.81	17.77	17.85	19.00
		1	23	17.91	17.84	17.90	19.00
		12	6	18.26	18.15	18.23	19.00
	DFT-s-OFDM 64QAM	1	1	18.00	17.87	17.97	19.00
		1	23	17.99	17.92	17.99	19.00
		12	6	18.24	18.19	18.26	19.00
	DFT-s-OFDM 256QAM	1	1	18.59	18.40	18.54	19.00
		1	23	17.50	17.34	17.47	19.00
		12	6	18.34	18.19	18.29	19.00
	CP-OFDM QPSK	1	1	18.19	18.04	18.16	19.00
	CP-OFDM 16QAM	1	1	18.50	18.34	18.47	19.00
	CP-OFDM	1	1	18.21	18.14	18.21	19.00

	64QAM						
	CP-OFDM 256QAM	1	1	16.53	16.48	16.55	17.80

Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				371000/1855	376500/1882.5	382000/1910	
10MHz	DFT-s-OFDM BPSK	1	1	18.13	18.12	18.12	19.00
		1	50	18.07	18.05	18.10	19.00
		25	12	18.33	18.21	18.33	19.00
		50	0	18.28	18.23	18.29	19.00
	DFT-s-OFDM QPSK	1	1	18.11	18.08	18.14	19.00
		1	50	18.24	18.10	18.20	19.00
		25	12	18.20	18.27	18.29	19.00
		50	0	18.21	18.22	18.31	19.00
	DFT-s-OFDM 16QAM	1	1	17.82	17.78	17.88	19.00
		1	50	17.93	17.89	17.92	19.00
		25	12	18.29	18.16	18.25	19.00
	DFT-s-OFDM 64QAM	1	1	18.04	17.90	18.01	19.00
		1	50	18.01	17.96	18.02	19.00
		25	12	18.26	18.23	18.29	19.00
	DFT-s-OFDM 256QAM	1	1	18.64	18.47	18.59	19.00
		1	50	17.53	17.39	17.50	19.00
		25	12	18.40	18.24	18.31	19.00
	CP-OFDM QPSK	1	1	18.22	18.05	18.22	19.00
	CP-OFDM 16QAM	1	1	18.54	18.37	18.51	19.00
	CP-OFDM 64QAM	1	1	18.23	18.18	18.24	19.00
	CP-OFDM 256QAM	1	1	16.55	16.52	16.58	17.80

Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				371500/1857.5	376500/1882.5	38150/1907.5	
15MHz	DFT-s-OFDM BPSK	1	1	18.09	18.00	18.07	19.00
		1	77	18.06	18.05	18.07	19.00
		36	18	18.26	18.13	18.24	19.00
		75	0	18.24	18.15	18.23	19.00
	DFT-s-OFDM QPSK	1	1	18.07	18.00	18.06	19.00
		1	77	18.17	18.05	18.14	19.00
		36	18	18.21	18.17	18.21	19.00
		75	0	18.22	18.16	18.23	19.00
	DFT-s-OFDM 16QAM	1	1	17.83	17.76	17.83	19.00
		1	77	17.89	17.80	17.86	19.00

		36	18	18.24	18.14	18.21	19.00
	DFT-s-OFDM 64QAM	1	1	17.96	17.81	17.92	19.00
		1	77	17.97	17.88	17.96	19.00
		36	18	18.22	18.15	18.21	19.00
	DFT-s-OFDM 256QAM	1	1	18.53	18.37	18.51	19.00
		1	77	17.48	17.33	17.45	19.00
		36	18	18.35	18.18	18.29	19.00
	CP-OFDM QPSK	1	1	18.19	18.07	18.18	19.00
	CP-OFDM 16QAM	1	1	18.47	18.30	18.45	19.00
	CP-OFDM 64QAM	1	1	18.19	18.10	18.18	19.00
	CP-OFDM 256QAM	1	1	16.51	16.44	16.50	17.80
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				372000/1860	376500/1882.5	381000/1905	
20MHz	DFT-s-OFDM BPSK	1	1	18.06	17.96	18.04	19.00
		1	104	18.05	18.01	18.05	19.00
		50	25	18.24	18.12	18.21	19.00
		100	0	18.21	18.10	18.19	19.00
	DFT-s-OFDM QPSK	1	1	18.05	17.96	18.03	19.00
		1	104	**18.14**	**18.00**	**18.10**	19.00
		50	25	**18.18**	18.12	18.17	19.00
		100	0	**18.19**	18.12	18.18	19.00
	DFT-s-OFDM 16QAM	1	1	17.80	17.74	17.79	19.00
		1	104	17.86	17.77	17.84	19.00
		50	25	18.21	18.10	18.18	19.00
	DFT-s-OFDM 64QAM	1	1	17.93	17.79	17.89	19.00
		1	104	17.94	17.83	17.92	19.00
		50	25	18.20	18.11	18.18	19.00
	DFT-s-OFDM 256QAM	1	1	18.51	18.33	18.46	19.00
		1	104	17.44	17.31	17.41	19.00
		50	25	18.29	18.12	18.23	19.00
	CP-OFDM QPSK	1	1	18.14	17.99	18.11	19.00
	CP-OFDM 16QAM	1	1	18.43	18.26	18.39	19.00
	CP-OFDM 64QAM	1	1	18.16	18.05	18.14	19.00
	CP-OFDM 256QAM	1	1	16.49	16.40	16.47	17.80

NR n25(NSA)							
Normal power & Receiver off-Main Ant2				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				370500/1852.5	376500/1882.5	382500/1912.5	
5MHz	DFT-s-OFDM BPSK	1	1	23.33	23.57	23.57	24.80
		1	23	23.38	23.54	23.57	24.80
		12	6	23.54	23.70	23.77	24.80
		25	0	23.02	23.23	23.30	23.80
	DFT-s-OFDM QPSK	1	1	23.30	23.53	23.59	24.80
		1	23	23.45	23.55	23.58	24.80
		12	6	23.48	23.74	23.75	24.80
		25	0	22.42	22.71	22.79	23.80
	DFT-s-OFDM 16QAM	1	1	22.01	22.16	22.34	22.80
		1	23	22.19	22.30	22.33	22.80
		12	6	22.51	22.62	22.68	22.80
	DFT-s-OFDM 64QAM	1	1	20.67	20.82	20.88	21.80
		1	23	20.71	20.89	20.91	21.80
		12	6	20.96	21.22	21.28	21.80
	DFT-s-OFDM 256QAM	1	1	19.21	19.35	19.44	20.30
		1	23	19.29	19.32	19.41	20.30
		12	6	19.00	19.15	19.18	20.30
	CP-OFDM QPSK	1	1	21.85	22.05	22.09	22.80
	CP-OFDM 16QAM	1	1	21.66	22.32	21.93	22.80
	CP-OFDM 64QAM	1	1	19.89	20.87	20.14	21.30
	CP-OFDM 256QAM	1	1	16.67	16.95	16.99	17.80

Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				371000/1855	376500/1882.5	382000/1910	
10MHz	DFT-s-OFDM BPSK	1	1	23.17	23.37	23.39	24.80
		1	50	23.28	23.37	23.43	24.80
		25	12	23.38	23.52	23.57	24.80
		50	0	22.86	22.99	23.10	23.80
	DFT-s-OFDM QPSK	1	1	23.17	23.32	23.38	24.80
		1	50	23.29	23.37	23.38	24.80
		25	12	23.39	23.55	23.57	24.80
		50	0	22.33	22.51	22.58	23.80
	DFT-s-OFDM 16QAM	1	1	21.92	22.04	22.16	22.80
		1	50	22.03	22.13	22.16	22.80
		25	12	22.36	22.44	22.52	22.80

	DFT-s-OFDM 64QAM	1	1	20.49	20.62	20.68	21.80
		1	50	20.55	20.65	20.71	21.80
		25	12	20.83	21.01	21.07	21.80
	DFT-s-OFDM 256QAM	1	1	19.03	19.19	19.23	20.30
		1	50	19.11	19.24	19.23	20.30
		25	12	18.85	18.95	18.97	20.30
	CP-OFDM QPSK	1	1	21.68	21.83	21.93	22.80
	CP-OFDM 16QAM	1	1	21.47	22.10	21.70	22.80
	CP-OFDM 64QAM	1	1	19.73	20.63	19.94	21.30
	CP-OFDM 256QAM	1	1	16.54	16.74	16.78	17.80
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				371500/1857.5	376500/1882.5	38150/1907.5	
15MHz	DFT-s-OFDM BPSK	1	1	23.28	23.48	23.51	24.80
		1	77	23.36	23.50	23.53	24.80
		36	18	23.48	23.63	23.69	24.80
		75	0	22.97	23.14	23.23	23.80
	DFT-s-OFDM QPSK	1	1	23.26	23.45	23.51	24.80
		1	77	23.39	23.49	23.51	24.80
		36	18	23.47	23.66	23.68	24.80
		75	0	22.41	22.64	22.71	23.80
	DFT-s-OFDM 16QAM	1	1	22.00	22.13	22.28	22.80
		1	77	22.14	22.23	22.27	22.80
		36	18	22.46	22.57	22.63	22.80
	DFT-s-OFDM 64QAM	1	1	20.60	20.74	20.80	21.80
		1	77	20.66	20.80	20.84	21.80
		36	18	20.92	21.14	21.20	21.80
	DFT-s-OFDM 256QAM	1	1	19.13	19.28	19.36	20.30
		1	77	19.23	19.29	19.35	20.30
		36	18	18.95	19.08	19.12	20.30
	CP-OFDM QPSK	1	1	21.80	22.00	22.04	22.80
	CP-OFDM 16QAM	1	1	21.59	22.24	21.85	22.80
	CP-OFDM 64QAM	1	1	19.84	20.78	20.07	21.30
	CP-OFDM 256QAM	1	1	16.63	16.87	16.91	17.80

Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				372000/1860	376500/1882.5	381000/1905	
20MHz	DFT-s-OFDM BPSK	1	1	23.20	23.35	23.42	24.80
		1	104	23.33	23.42	23.47	24.80
		50	25	23.40	23.55	23.58	24.80
		100	0	22.89	23.00	23.12	23.80
	DFT-s-OFDM QPSK	1	1	23.20	23.33	**23.40**	24.80
		1	104	**23.30**	**23.38**	**23.40**	24.80
		50	25	23.43	23.53	**23.57**	24.80
		100	0	22.37	22.53	**22.58**	23.80
	DFT-s-OFDM 16QAM	1	1	21.96	22.08	22.18	22.80
		1	104	22.06	22.13	22.19	22.80
		50	25	22.38	22.48	22.55	22.80
	DFT-s-OFDM 64QAM	1	1	20.50	20.64	20.69	21.80
		1	104	20.58	20.66	20.73	21.80
		50	25	20.86	21.02	21.09	21.80
	DFT-s-OFDM 256QAM	1	1	19.03	19.17	19.23	20.30
		1	104	19.13	19.24	19.25	20.30
		50	25	18.84	18.95	19.00	20.30
	CP-OFDM QPSK	1	1	21.70	21.87	21.92	22.80
	CP-OFDM 16QAM	1	1	21.48	22.12	21.71	22.80
	CP-OFDM 64QAM	1	1	19.76	20.64	19.96	21.30
	CP-OFDM 256QAM	1	1	16.57	16.75	16.80	17.80

NR n25(NSA)							
Receiver on-Main Ant2				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				370500/1852.5	376500/1882.5	382500/1912.5	
5MHz	DFT-s-OFDM BPSK	1	1	18.11	18.05	18.10	19.00
		1	23	18.07	18.05	18.09	19.00
		12	6	18.30	18.19	18.29	19.00
		25	0	18.26	18.19	18.26	19.00
	DFT-s-OFDM QPSK	1	1	18.09	18.04	18.11	19.00
		1	23	18.20	18.06	18.17	19.00
		12	6	18.19	18.20	18.24	19.00
		25	0	18.20	18.19	18.26	19.00
	DFT-s-OFDM 16QAM	1	1	17.81	17.77	17.85	19.00
		1	23	17.91	17.84	17.90	19.00
		12	6	18.26	18.15	18.23	19.00

	DFT-s-OFDM 64QAM	1	1	18.00	17.87	17.97	19.00
		1	23	17.99	17.92	17.99	19.00
		12	6	18.24	18.19	18.26	19.00
	DFT-s-OFDM 256QAM	1	1	18.59	18.40	18.54	19.00
		1	23	17.50	17.34	17.47	19.00
		12	6	18.34	18.19	18.29	19.00
	CP-OFDM QPSK	1	1	18.19	18.04	18.16	19.00
	CP-OFDM 16QAM	1	1	18.50	18.34	18.47	19.00
	CP-OFDM 64QAM	1	1	18.21	18.14	18.21	19.00
	CP-OFDM 256QAM	1	1	16.53	16.48	16.55	17.80
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				371000/1855	376500/1882.5	382000/1910	
10MHz	DFT-s-OFDM BPSK	1	1	18.13	18.12	18.12	19.00
		1	50	18.07	18.05	18.10	19.00
		25	12	18.33	18.21	18.33	19.00
		50	0	18.28	18.23	18.29	19.00
	DFT-s-OFDM QPSK	1	1	18.11	18.08	18.14	19.00
		1	50	18.24	18.10	18.20	19.00
		25	12	18.20	18.27	18.29	19.00
		50	0	18.21	18.22	18.31	19.00
	DFT-s-OFDM 16QAM	1	1	17.82	17.78	17.88	19.00
		1	50	17.93	17.89	17.92	19.00
		25	12	18.29	18.16	18.25	19.00
	DFT-s-OFDM 64QAM	1	1	18.04	17.90	18.01	19.00
		1	50	18.01	17.96	18.02	19.00
		25	12	18.26	18.23	18.29	19.00
	DFT-s-OFDM 256QAM	1	1	18.64	18.47	18.59	19.00
		1	50	17.53	17.39	17.50	19.00
		25	12	18.40	18.24	18.31	19.00
	CP-OFDM QPSK	1	1	18.22	18.05	18.22	19.00
	CP-OFDM 16QAM	1	1	18.54	18.37	18.51	19.00
	CP-OFDM 64QAM	1	1	18.23	18.18	18.24	19.00
	CP-OFDM 256QAM	1	1	16.55	16.52	16.58	17.80
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				371500/1857.5	376500/1882.5	38150/1907.5	

15MHz	DFT-s-OFDM BPSK	1	1	18.09	18.00	18.07	19.00
		1	77	18.06	18.05	18.07	19.00
		36	18	18.26	18.13	18.24	19.00
		75	0	18.24	18.15	18.23	19.00
	DFT-s-OFDM QPSK	1	1	18.07	18.00	18.06	19.00
		1	77	18.17	18.05	18.14	19.00
		36	18	18.21	18.17	18.21	19.00
		75	0	18.22	18.16	18.23	19.00
	DFT-s-OFDM 16QAM	1	1	17.83	17.76	17.83	19.00
		1	77	17.89	17.80	17.86	19.00
		36	18	18.24	18.14	18.21	19.00
	DFT-s-OFDM 64QAM	1	1	17.96	17.81	17.92	19.00
		1	77	17.97	17.88	17.96	19.00
		36	18	18.22	18.15	18.21	19.00
	DFT-s-OFDM 256QAM	1	1	18.53	18.37	18.51	19.00
		1	77	17.48	17.33	17.45	19.00
		36	18	18.35	18.18	18.29	19.00
	CP-OFDM QPSK	1	1	18.19	18.07	18.18	19.00
	CP-OFDM 16QAM	1	1	18.47	18.30	18.45	19.00
	CP-OFDM 64QAM	1	1	18.19	18.10	18.18	19.00
	CP-OFDM 256QAM	1	1	16.51	16.44	16.50	17.80

Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				372000/1860	376500/1882.5	381000/1905	
20MHz	DFT-s-OFDM BPSK	1	1	18.06	17.96	18.04	19.00
		1	104	18.05	18.01	18.05	19.00
		50	25	18.24	18.12	18.21	19.00
		100	0	18.21	18.10	18.19	19.00
	DFT-s-OFDM QPSK	1	1	18.05	17.96	18.03	19.00
		1	104	**18.14**	**18.00**	**18.10**	19.00
		50	25	**18.18**	18.12	18.17	19.00
		100	0	**18.19**	18.12	18.18	19.00
	DFT-s-OFDM 16QAM	1	1	17.80	17.74	17.79	19.00
		1	104	17.86	17.77	17.84	19.00
		50	25	18.21	18.10	18.18	19.00
	DFT-s-OFDM 64QAM	1	1	17.93	17.79	17.89	19.00
		1	104	17.94	17.83	17.92	19.00
		50	25	18.20	18.11	18.18	19.00
	DFT-s-OFDM 256QAM	1	1	18.51	18.33	18.46	19.00
		1	104	17.44	17.31	17.41	19.00

		50	25	18.29	18.12	18.23	19.00
	CP-OFDM QPSK	1	1	18.14	17.99	18.11	19.00
	CP-OFDM 16QAM	1	1	18.43	18.26	18.39	19.00
	CP-OFDM 64QAM	1	1	18.16	18.05	18.14	19.00
	CP-OFDM 256QAM	1	1	16.49	16.40	16.47	17.80

n25(NSA)							
Hotspot on-Main Ant2				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				370500/1852.5	376500/1882.5	382500/1912.5	
5MHz	DFT-s-OFDM BPSK	1	1	19.99	20.21	20.25	21.00
		1	23	20.10	20.25	20.38	21.00
		12	6	20.20	20.35	20.47	21.00
		25	0	20.20	20.42	20.48	21.00
	DFT-s-OFDM QPSK	1	1	19.99	20.21	20.57	21.00
		1	23	20.12	20.27	20.43	21.00
		12	6	20.19	20.42	20.50	21.00
		25	0	20.22	20.33	20.53	21.00
	DFT-s-OFDM 16QAM	1	1	19.77	19.93	20.03	21.00
		1	23	19.90	20.00	20.13	21.00
		12	6	20.23	20.38	20.46	21.00
	DFT-s-OFDM 64QAM	1	1	19.81	20.00	20.08	21.00
		1	23	19.93	20.10	20.20	21.00
		12	6	20.20	20.37	20.48	21.00
	DFT-s-OFDM 256QAM	1	1	18.88	19.06	19.17	20.00
		1	23	19.00	19.09	19.27	20.00
		12	6	18.72	18.88	18.96	20.00
	CP-OFDM QPSK	1	1	20.03	20.27	20.36	21.00
	CP-OFDM 16QAM	1	1	20.30	20.51	20.62	21.00
	CP-OFDM 64QAM	1	1	19.59	19.85	19.89	21.00
	CP-OFDM 256QAM	1	1	16.42	16.65	16.71	17.80
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				371000/1855	376500/1882.5	382000/1910	
10MHz	DFT-s-OFDM BPSK	1	1	20.09	20.39	20.37	21.00
		1	50	20.14	20.33	20.46	21.00

		25	12	20.32	20.49	20.63	21.00
		50	0	20.30	20.60	20.62	21.00
	DFT-s-OFDM QPSK	1	1	20.07	20.37	20.73	21.00
		1	50	20.24	20.39	20.57	21.00
		25	12	20.21	20.58	20.64	21.00
		50	0	20.24	20.47	20.69	21.00
	DFT-s-OFDM 16QAM	1	1	19.79	19.99	20.15	21.00
		1	50	20.00	20.14	20.25	21.00
		25	12	20.33	20.48	20.56	21.00
	DFT-s-OFDM 64QAM	1	1	19.95	20.16	20.24	21.00
		1	50	20.03	20.28	20.34	21.00
		25	12	20.28	20.53	20.64	21.00
	DFT-s-OFDM 256QAM	1	1	19.04	19.20	19.33	20.00
		1	50	19.12	19.15	19.39	20.00
		25	12	18.82	19.02	19.08	20.00
	CP-OFDM QPSK	1	1	20.13	20.37	20.46	21.00
	CP-OFDM 16QAM	1	1	20.44	20.67	20.78	21.00
	CP-OFDM 64QAM	1	1	19.69	20.03	20.03	21.00
	CP-OFDM 256QAM	1	1	16.50	16.81	16.87	17.80
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				371500/1857.5	376500/1882.5	38150/1907.5	
15MHz	DFT-s-OFDM BPSK	1	1	19.96	20.17	20.22	21.00
		1	77	20.09	20.21	20.36	21.00
		36	18	20.18	20.34	20.44	21.00
		75	0	20.17	20.37	20.44	21.00
	DFT-s-OFDM QPSK	1	1	19.97	20.17	20.54	21.00
		1	77	20.09	20.22	20.39	21.00
		36	18	20.16	20.37	20.46	21.00
		75	0	20.19	20.29	20.48	21.00
	DFT-s-OFDM 16QAM	1	1	19.74	19.91	19.99	21.00
		1	77	19.87	19.97	20.11	21.00
		36	18	20.20	20.34	20.43	21.00
	DFT-s-OFDM 64QAM	1	1	19.78	19.98	20.05	21.00
		1	77	19.90	20.05	20.16	21.00
		36	18	20.18	20.33	20.45	21.00
	DFT-s-OFDM 256QAM	1	1	18.86	19.02	19.12	20.00
		1	77	18.96	19.07	19.23	20.00
		36	18	18.66	18.82	18.90	20.00
	CP-OFDM	1	1	19.98	20.19	20.29	21.00

	QPSK						
	CP-OFDM 16QAM	1	1	20.26	20.47	20.56	21.00
	CP-OFDM 64QAM	1	1	19.56	19.80	19.85	21.00
	CP-OFDM 256QAM	1	1	16.40	16.61	16.68	17.80
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				372000/1860	376500/1882.5	381000/1905	
20MHz	DFT-s-OFDM BPSK	1	1	19.92	20.09	20.17	21.00
		1	104	20.06	20.16	20.31	21.00
		50	25	20.13	20.28	20.37	21.00
		100	0	20.12	20.28	20.37	21.00
	DFT-s-OFDM QPSK	1	1	19.92	20.08	**20.47**	21.00
		1	104	**20.03**	**20.14**	20.31	21.00
		50	25	20.11	20.28	**20.37**	21.00
		100	0	20.14	20.23	**20.41**	21.00
	DFT-s-OFDM 16QAM	1	1	19.69	19.86	19.93	21.00
		1	104	19.82	19.90	20.06	21.00
		50	25	20.14	20.28	20.37	21.00
	DFT-s-OFDM 64QAM	1	1	19.72	19.91	19.98	21.00
		1	104	19.85	19.96	20.09	21.00
		50	25	20.13	20.24	20.38	21.00
	DFT-s-OFDM 256QAM	1	1	18.79	18.96	19.05	20.00
		1	104	18.90	19.02	19.17	20.00
		50	25	18.61	18.75	18.85	20.00
	CP-OFDM QPSK	1	1	19.92	20.13	20.23	21.00
	CP-OFDM 16QAM	1	1	20.20	20.40	20.49	21.00
	CP-OFDM 64QAM	1	1	19.51	19.71	19.78	21.00
	CP-OFDM 256QAM	1	1	16.35	16.52	16.61	17.80

NR n30(NSA)							
Normal power-Main Ant4				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				461500/2307.5	462000/2310	462500/2312.5	
5MHz	DFT-s-OFDM BPSK	1	1	23.29	23.22	23.43	24.50
		1	23	23.08	23.08	23.16	24.50
		12	6	23.26	23.24	23.39	24.50
		25	0	23.16	23.12	23.31	23.50

	DFT-s-OFDM QPSK	1	1	23.34	23.30	23.46	24.50
		1	23	23.30	23.26	23.47	24.50
		12	6	23.27	23.20	23.34	24.50
		25	0	23.20	23.17	23.26	23.50
	DFT-s-OFDM 16QAM	1	1	21.68	21.67	21.72	22.50
		1	23	21.88	21.83	22.01	22.50
		12	6	22.22	22.21	22.36	22.50
	DFT-s-OFDM 64QAM	1	1	21.98	21.95	21.90	22.00
		1	23	21.86	21.82	21.84	22.00
		12	6	21.10	21.06	21.22	22.00
	DFT-s-OFDM 256QAM	1	1	19.31	19.24	19.51	20.00
		1	23	19.23	19.18	19.37	20.00
		12	6	19.00	18.95	19.16	20.00
	CP-OFDM QPSK	1	1	21.74	21.73	21.92	22.50
	CP-OFDM 16QAM	1	1	21.57	21.54	21.75	22.50
	CP-OFDM 64QAM	1	1	19.81	19.77	19.96	21.00
	CP-OFDM 256QAM	1	1	16.70	16.66	16.82	17.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				/	462000/2310	/	
10MHz	DFT-s-OFDM BPSK	1	1	/	23.17	/	24.50
		1	50	/	23.06	/	24.50
		25	12	/	23.18	/	24.50
		50	0	/	23.07	/	23.50
	DFT-s-OFDM QPSK	1	1	/	**23.26**	/	24.50
		1	50	/	23.20	/	24.50
		25	12	/	**23.19**	/	24.50
		50	0	/	**23.16**	/	23.50
	DFT-s-OFDM 16QAM	1	1	/	21.66	/	22.50
		1	50	/	21.78	/	22.50
		25	12	/	22.16	/	22.50
	DFT-s-OFDM 64QAM	1	1	/	21.88	/	22.00
		1	50	/	21.77	/	22.00
		25	12	/	21.02	/	22.00
	DFT-s-OFDM 256QAM	1	1	/	19.16	/	20.00
		1	50	/	19.12	/	20.00
		25	12	/	18.90	/	20.00
	CP-OFDM QPSK	1	1	/	21.68	/	22.50
	CP-OFDM	1	1	/	21.47	/	22.50

	16QAM						
	CP-OFDM 64QAM	1	1	/	19.72	/	21.00
	CP-OFDM 256QAM	1	1	/	16.62	/	17.50

NR n30(NSA)							
Hotspot on-Main Ant4				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				461500/2307.5	462000/2310	462500/2312.5	
5MHz	DFT-s-OFDM BPSK	1	1	20.19	20.07	20.05	21.00
		1	23	19.98	19.96	19.95	21.00
		12	6	20.22	20.14	20.10	21.00
		25	0	20.29	20.20	20.17	21.00
	DFT-s-OFDM QPSK	1	1	20.19	20.11	20.08	21.00
		1	23	20.21	20.11	20.08	21.00
		12	6	20.31	20.23	20.18	21.00
		25	0	20.22	20.18	20.13	21.00
	DFT-s-OFDM 16QAM	1	1	19.84	19.82	19.79	21.00
		1	23	19.89	19.79	19.77	21.00
		12	6	20.21	20.15	20.13	21.00
	DFT-s-OFDM 64QAM	1	1	19.96	19.86	19.82	21.00
		1	23	19.98	19.89	19.86	21.00
		12	6	19.93	19.85	19.82	21.00
	DFT-s-OFDM 256QAM	1	1	19.36	19.21	19.16	20.00
		1	23	19.24	19.13	19.10	20.00
		12	6	18.99	18.89	18.87	20.00
	CP-OFDM QPSK	1	1	20.19	20.13	20.07	21.00
	CP-OFDM 16QAM	1	1	20.26	20.16	20.12	21.00
	CP-OFDM 64QAM	1	1	19.31	19.22	19.19	21.00
	CP-OFDM 256QAM	1	1	16.71	16.63	16.60	17.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				/	462000/2310	/	
10MHz	DFT-s-OFDM BPSK	1	1	/	19.93	/	21.00
		1	50	/	19.90	/	21.00
		25	12	/	20.01	/	21.00
		50	0	/	20.06	/	21.00
	DFT-s-OFDM QPSK	1	1	/	**19.97**	/	21.00
		1	50	/	19.96	/	21.00

		25	12	/	**20.02**	/	21.00
		50	0	/	**20.03**	/	21.00
	DFT-s-OFDM 16QAM	1	1	/	19.72	/	21.00
		1	50	/	19.67	/	21.00
		25	12	/	20.06	/	21.00
	DFT-s-OFDM 64QAM	1	1	/	19.72	/	21.00
		1	50	/	19.75	/	21.00
		25	12	/	19.71	/	21.00
	DFT-s-OFDM 256QAM	1	1	/	19.02	/	20.00
		1	50	/	18.99	/	20.00
		25	12	/	18.77	/	20.00
	CP-OFDM QPSK	1	1	/	20.00	/	21.00
	CP-OFDM 16QAM	1	1	/	20.02	/	21.00
	CP-OFDM 64QAM	1	1	/	19.08	/	21.00
	CP-OFDM 256QAM	1	1	/	16.49	/	17.50

NR n30(NSA)							
Receiver on-Main Ant4				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				461500/2307.5	462000/2310	462500/2312.5	
5MHz	DFT-s-OFDM BPSK	1	1	19.10	19.03	19.18	20.00
		1	23	18.94	18.91	18.99	20.00
		12	6	19.15	19.05	19.21	20.00
		25	0	19.16	19.08	19.25	20.00
	DFT-s-OFDM QPSK	1	1	19.10	19.03	19.19	20.00
		1	23	19.05	18.96	19.13	20.00
		12	6	19.19	19.13	19.28	20.00
		25	0	19.14	19.08	19.20	20.00
	DFT-s-OFDM 16QAM	1	1	18.78	18.74	18.83	20.00
		1	23	18.80	18.73	18.87	20.00
		12	6	19.17	19.10	19.23	20.00
	DFT-s-OFDM 64QAM	1	1	18.93	18.82	19.00	20.00
		1	23	18.86	18.78	18.95	20.00
		12	6	19.14	19.07	19.23	20.00
	DFT-s-OFDM 256QAM	1	1	19.26	19.13	19.32	20.00
		1	23	19.16	19.07	19.21	20.00
		12	6	18.94	18.87	19.01	20.00
	CP-OFDM QPSK	1	1	19.16	19.05	19.22	20.00

	CP-OFDM 16QAM	1	1	19.46	19.35	19.53	20.00
	CP-OFDM 64QAM	1	1	19.21	19.13	19.30	20.00
	CP-OFDM 256QAM	1	1	16.61	16.54	16.70	17.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				/	462000/2310	/	
10MHz	DFT-s-OFDM BPSK	1	1	/	18.96	/	20.00
		1	50	/	18.91	/	20.00
		25	12	/	19.03	/	20.00
		50	0	/	19.04	/	20.00
	DFT-s-OFDM QPSK	1	1	/	**18.99**	/	20.00
		1	50	/	18.92	/	20.00
		25	12	/	**19.06**	/	20.00
		50	0	/	**19.05**	/	20.00
	DFT-s-OFDM 16QAM	1	1	/	18.73	/	20.00
		1	50	/	18.68	/	20.00
		25	12	/	19.09	/	20.00
	DFT-s-OFDM 64QAM	1	1	/	18.79	/	20.00
		1	50	/	18.74	/	20.00
		25	12	/	19.03	/	20.00
	DFT-s-OFDM 256QAM	1	1	/	19.06	/	20.00
		1	50	/	19.02	/	20.00
		25	12	/	18.82	/	20.00
	CP-OFDM QPSK	1	1	/	19.04	/	20.00
	CP-OFDM 16QAM	1	1	/	19.32	/	20.00
	CP-OFDM 64QAM	1	1	/	19.09	/	20.00
	CP-OFDM 256QAM	1	1	/	16.50	/	17.50

NR n30(NSA)							
Receiver off-Main Ant4				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				461500/2307.5	462000/2310	462500/2312.5	
5MHz	DFT-s-OFDM BPSK	1	1	20.85	20.97	20.90	22.00
		1	23	20.84	20.86	20.86	22.00
		12	6	20.79	20.87	20.85	22.00
		25	0	21.03	21.12	21.08	22.00
	DFT-s-OFDM	1	1	20.72	20.80	20.76	22.00

	QPSK	1	23	20.78	20.88	20.84	22.00
		12	6	20.81	20.89	20.82	22.00
		25	0	20.95	20.99	20.96	22.00
	DFT-s-OFDM 16QAM	1	1	20.45	20.47	20.46	22.00
		1	23	20.74	20.84	20.79	22.00
		12	6	20.60	20.66	20.65	22.00
	DFT-s-OFDM 64QAM	1	1	20.43	20.53	20.50	22.00
		1	23	20.55	20.64	20.60	22.00
		12	6	20.83	20.91	20.87	22.00
	DFT-s-OFDM 256QAM	1	1	20.06	20.21	20.14	21.00
		1	23	19.78	19.89	19.84	21.00
		12	6	19.63	19.73	19.68	21.00
	CP-OFDM QPSK	1	1	20.63	20.69	20.68	22.00
	CP-OFDM 16QAM	1	1	20.89	20.99	20.96	22.00
	CP-OFDM 64QAM	1	1	19.92	20.01	19.97	21.00
	CP-OFDM 256QAM	1	1	17.19	17.27	17.23	17.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				/	462000/2310	/	
10MHz	DFT-s-OFDM BPSK	1	1	/	20.74	/	22.00
		1	50	/	20.80	/	22.00
		25	12	/	20.69	/	22.00
		50	0	/	20.92	/	22.00
	DFT-s-OFDM QPSK	1	1	/	20.62	/	22.00
		1	50	/	**20.68**	/	22.00
		25	12	/	**20.72**	/	22.00
		50	0	/	**20.87**	/	22.00
	DFT-s-OFDM 16QAM	1	1	/	20.41	/	22.00
		1	50	/	20.65	/	22.00
		25	12	/	20.52	/	22.00
	DFT-s-OFDM 64QAM	1	1	/	20.31	/	22.00
		1	50	/	20.44	/	22.00
		25	12	/	20.73	/	22.00
	DFT-s-OFDM 256QAM	1	1	/	19.94	/	21.00
		1	50	/	19.72	/	21.00
		25	12	/	19.50	/	21.00
	CP-OFDM QPSK	1	1	/	20.55	/	22.00
	CP-OFDM 16QAM	1	1	/	20.77	/	22.00

	CP-OFDM 64QAM	1	1	/	19.81	/	21.00
	CP-OFDM 256QAM	1	1	/	17.09	/	17.50

NR n41(SA&NSA)							
Normal power-Main Ant4				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				500202/2501.01	5185.98/2592.99	537000/2685	
10MHz	DFT-s-OFDM BPSK	1	1	24.87	25.00	24.73	26.50
		1	22	25.24	24.89	24.91	26.50
		12	6	26.04	25.94	26.13	26.50
		24	0	25.40	25.57	25.44	26.00
	DFT-s-OFDM QPSK	1	1	24.83	25.34	25.28	26.50
		1	22	25.25	25.05	25.04	26.50
		12	6	25.81	26.08	25.97	26.50
		24	0	24.84	25.22	24.95	25.50
	DFT-s-OFDM 16QAM	1	1	23.70	24.26	23.99	24.50
		1	22	24.43	24.45	24.08	24.50
		12	6	25.13	24.77	25.19	24.50
	DFT-s-OFDM 64QAM	1	1	22.50	22.93	22.94	24.00
		1	22	22.81	22.95	22.62	24.00
		12	6	24.04	23.67	24.01	24.00
	DFT-s-OFDM 256QAM	1	1	22.28	21.46	21.88	22.00
		1	22	21.80	21.44	21.75	22.00
		12	6	22.23	21.58	22.27	22.00
	CP-OFDM QPSK	1	1	22.85	22.91	23.24	24.00
	CP-OFDM 16QAM	1	1	22.62	23.14	23.03	24.00
	CP-OFDM 64QAM	1	1	20.85	21.27	21.25	22.50
	CP-OFDM 256QAM	1	1	18.12	18.94	18.60	19.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				500700/2503.5	518598/2592.99	536496/2682.48	
15MHz	DFT-s-OFDM BPSK	1	1	24.89	25.01	24.76	26.50
		1	36	25.27	24.94	24.95	26.50
		18	9	26.06	25.98	26.16	26.50
		36	0	25.43	25.62	25.48	26.00
	DFT-s-OFDM QPSK	1	1	24.86	25.39	25.32	26.50
		1	36	25.27	25.09	25.09	26.50
		18	9	25.85	26.10	26.01	26.50

		36	0	24.88	25.25	24.97	25.50
	DFT-s-OFDM 16QAM	1	1	23.74	24.30	24.02	24.50
		1	36	24.46	24.47	24.11	24.50
		18	9	25.16	24.82	25.23	24.50
	DFT-s-OFDM 64QAM	1	1	22.52	22.97	22.97	24.00
		1	36	22.84	23.00	22.66	24.00
		18	9	24.07	23.72	24.05	24.00
	DFT-s-OFDM 256QAM	1	1	22.30	21.45	21.90	22.00
		1	36	21.83	21.44	21.78	22.00
		18	9	22.22	21.60	22.30	22.00
	CP-OFDM QPSK	1	1	22.88	22.96	23.24	24.00
	CP-OFDM 16QAM	1	1	22.64	23.18	23.06	24.00
	CP-OFDM 64QAM	1	1	20.88	21.32	21.29	22.50
	CP-OFDM 256QAM	1	1	18.15	18.99	18.64	19.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				501204/2506.2	518598/2592.99	535998/2679.99	
20MHz	DFT-s-OFDM BPSK	1	1	24.88	24.97	24.74	26.50
		1	49	25.25	24.93	24.92	26.50
		25	12	26.03	25.93	26.12	26.50
		50	0	25.41	25.58	25.45	26.00
	DFT-s-OFDM QPSK	1	1	24.83	25.34	25.28	26.50
		1	49	25.24	25.06	25.05	26.50
		25	12	25.83	26.06	25.96	26.50
		50	0	24.86	25.23	24.95	25.50
	DFT-s-OFDM 16QAM	1	1	23.72	24.27	24.00	24.50
		1	49	24.44	24.43	24.08	24.50
		25	12	25.13	24.80	25.20	24.50
	DFT-s-OFDM 64QAM	1	1	22.49	22.92	22.93	24.00
		1	49	22.82	22.96	22.63	24.00
		25	12	24.04	23.67	24.01	24.00
	DFT-s-OFDM 256QAM	1	1	22.25	21.43	21.88	22.00
		1	49	21.81	21.41	21.76	22.00
		25	12	22.23	21.59	22.31	22.00
	CP-OFDM QPSK	1	1	22.87	22.98	23.25	24.00
	CP-OFDM 16QAM	1	1	22.62	23.15	23.05	24.00
	CP-OFDM 64QAM	1	1	20.86	21.28	21.26	22.50

	CP-OFDM 256QAM	1	1	18.12	18.94	18.60	19.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				502200/2511	518598/2592.99	534996/2674.98	
30MHz	DFT-s-OFDM BPSK	1	1	24.85	24.93	24.71	26.50
		1	76	25.24	24.89	24.90	26.50
		36	18	26.01	25.92	26.09	26.50
		75	0	25.38	25.53	25.41	26.00
	DFT-s-OFDM QPSK	1	1	24.81	25.30	25.25	26.50
		1	76	25.21	25.01	25.01	26.50
		36	18	25.80	26.01	25.92	26.50
		75	0	24.83	25.19	24.90	25.50
	DFT-s-OFDM 16QAM	1	1	23.69	24.25	23.96	24.50
		1	76	24.41	24.40	24.06	24.50
		36	18	25.10	24.76	25.17	24.50
	DFT-s-OFDM 64QAM	1	1	22.46	22.90	22.90	24.00
		1	76	22.79	22.91	22.59	24.00
		36	18	24.02	23.63	23.98	24.00
	DFT-s-OFDM 256QAM	1	1	22.23	21.39	21.83	22.00
		1	76	21.77	21.39	21.72	22.00
		36	18	22.17	21.53	22.25	22.00
	CP-OFDM QPSK	1	1	22.82	22.90	23.18	24.00
	CP-OFDM 16QAM	1	1	22.58	23.11	22.99	24.00
	CP-OFDM 64QAM	1	1	20.83	21.23	21.22	22.50
	CP-OFDM 256QAM	1	1	18.10	18.90	18.57	19.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				503202/2516.01	518598/2592.99	534000/2670	
40MHz	DFT-s-OFDM BPSK	1	1	24.82	24.91	24.67	26.50
		1	104	25.22	24.85	24.87	26.50
		50	25	25.98	25.87	26.05	26.50
		100	0	25.35	25.48	25.37	26.00
	DFT-s-OFDM QPSK	1	1	24.79	25.26	25.20	26.50
		1	104	25.19	24.99	24.97	26.50
		50	25	25.80	26.00	25.90	26.50
		100	0	24.83	25.15	24.87	25.50
	DFT-s-OFDM 16QAM	1	1	23.69	24.23	23.93	24.50
		1	104	24.38	24.38	24.02	24.50
		50	25	25.08	24.72	25.14	24.50
	DFT-s-OFDM	1	1	22.43	22.85	22.86	24.00

	64QAM	1	104	22.76	22.86	22.55	24.00
		50	25	24.00	23.59	23.93	24.00
	DFT-s-OFDM 256QAM	1	1	22.20	21.39	21.80	22.00
		1	104	21.74	21.41	21.69	22.00
		50	25	22.18	21.51	22.21	22.00
	CP-OFDM QPSK	1	1	22.80	22.86	23.19	24.00
	CP-OFDM 16QAM	1	1	22.55	23.06	22.95	24.00
	CP-OFDM 64QAM	1	1	20.80	21.18	21.18	22.50
	CP-OFDM 256QAM	1	1	18.08	18.86	18.52	19.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				504204/2521.02	518598/2592.99	5.33E+09	
50MHz	DFT-s-OFDM BPSK	1	1	24.79	24.83	24.64	26.50
		1	131	25.23	24.86	24.87	26.50
		64	32	25.94	25.84	26.00	26.50
		128	0	25.33	25.44	25.34	26.00
	DFT-s-OFDM QPSK	1	1	24.78	25.23	25.16	26.50
		1	131	25.15	24.97	24.95	26.50
		64	32	25.83	25.94	25.87	26.50
		128	0	24.86	25.11	24.81	25.50
	DFT-s-OFDM 16QAM	1	1	23.72	24.24	23.90	24.50
		1	131	24.36	24.33	23.99	24.50
		64	32	24.05	24.18	24.33	24.50
	DFT-s-OFDM 64QAM	1	1	22.38	22.81	22.81	24.00
		1	131	22.74	22.82	22.52	24.00
		64	32	23.85	23.56	23.89	24.00
	DFT-s-OFDM 256QAM	1	1	21.81	21.31	21.74	22.00
		1	131	21.71	21.38	21.66	22.00
		64	32	21.90	21.46	21.84	22.00
	CP-OFDM QPSK	1	1	22.78	22.86	23.14	24.00
	CP-OFDM 16QAM	1	1	22.50	23.02	22.90	24.00
	CP-OFDM 64QAM	1	1	20.78	21.14	21.15	22.50
	CP-OFDM 256QAM	1	1	18.07	18.83	18.48	19.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				505200/2526	518598/2595.99	531996/2659.98	
60MHz	DFT-s-OFDM	1	1	24.84	24.92	24.70	26.50

	BPSK	1	160	25.25	24.90	24.91	26.50
		81	40	26.00	25.91	26.08	26.50
		162	0	25.38	25.53	25.41	26.00
	DFT-s-OFDM QPSK	1	1	24.82	25.31	25.24	26.50
		1	160	25.21	25.03	25.02	26.50
		81	40	25.84	26.02	25.94	26.50
		162	0	24.87	25.18	24.89	25.50
	DFT-s-OFDM 16QAM	1	1	23.73	24.27	23.96	24.50
		1	160	24.41	24.40	24.05	24.50
		81	40	24.19	24.41	24.33	24.50
	DFT-s-OFDM 64QAM	1	1	22.45	22.89	22.89	24.00
		1	160	22.79	22.91	22.59	24.00
		81	40	23.77	23.64	23.97	24.00
	DFT-s-OFDM 256QAM	1	1	21.42	21.38	21.82	22.00
		1	160	21.77	21.41	21.72	22.00
		81	40	21.90	21.53	21.78	22.00
	CP-OFDM QPSK	1	1	22.83	22.91	23.19	24.00
	CP-OFDM 16QAM	1	1	22.57	23.10	22.98	24.00
	CP-OFDM 64QAM	1	1	20.83	21.23	21.22	22.50
	CP-OFDM 256QAM	1	1	18.11	18.91	18.56	19.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				507204/2536.02	518598/2595.99	529998/2649.99	
80MHz	DFT-s-OFDM BPSK	1	1	24.83	24.88	24.68	26.50
		1	215	25.23	24.89	24.88	26.50
		108	54	25.97	25.86	26.04	26.50
		216	0	25.36	25.49	25.38	26.00
	DFT-s-OFDM QPSK	1	1	24.79	25.26	25.20	26.50
		1	215	25.18	25.00	24.98	26.50
		108	54	25.82	25.98	25.89	26.50
		216	0	24.85	25.16	24.87	25.50
	DFT-s-OFDM 16QAM	1	1	23.71	24.24	23.94	24.50
		1	215	24.39	24.36	24.02	24.50
		108	54	24.32	24.20	24.44	24.50
	DFT-s-OFDM 64QAM	1	1	22.42	22.84	22.85	24.00
		1	215	22.77	22.87	22.56	24.00
		108	54	24.00	23.59	23.93	24.00
	DFT-s-OFDM 256QAM	1	1	21.77	21.36	21.80	22.00
		1	215	21.75	21.38	21.70	22.00
		108	54	21.90	21.52	21.86	22.00

	CP-OFDM QPSK	1	1	22.82	22.93	23.20	24.00
	CP-OFDM 16QAM	1	1	22.55	23.07	22.97	24.00
	CP-OFDM 64QAM	1	1	20.81	21.19	21.19	22.50
	CP-OFDM 256QAM	1	1	18.08	18.86	18.52	19.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				508200/2541	518598/2595.99	528996/2644.98	
90MHz	DFT-s-OFDM BPSK	1	1	24.78	24.79	24.62	26.50
		1	243	25.21	24.85	24.84	26.50
		120	60	25.91	25.79	25.96	26.50
		243	0	25.31	25.40	25.31	26.00
	DFT-s-OFDM QPSK	1	1	24.75	25.18	25.12	26.50
		1	243	25.12	24.94	24.91	26.50
		120	60	25.81	25.90	25.82	26.50
		243	0	24.84	25.09	24.79	25.50
	DFT-s-OFDM 16QAM	1	1	23.70	24.21	23.88	24.50
		1	243	24.34	24.29	23.96	24.50
		120	60	24.42	24.28	24.26	24.50
	DFT-s-OFDM 64QAM	1	1	22.35	22.76	22.77	24.00
		1	243	22.72	22.78	22.49	24.00
		120	60	23.96	23.51	23.85	24.00
	DFT-s-OFDM 256QAM	1	1	21.80	21.29	21.72	22.00
		1	243	21.69	21.35	21.64	22.00
		120	60	21.69	21.45	21.78	22.00
	CP-OFDM QPSK	1	1	22.77	22.88	23.15	24.00
	CP-OFDM 16QAM	1	1	22.48	22.99	22.89	24.00
	CP-OFDM 64QAM	1	1	20.76	21.10	21.12	22.50
	CP-OFDM 256QAM	1	1	18.04	18.78	18.44	19.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				509202/2546.01	518598/2592.99	528000/2640	
100MHz	DFT-s-OFDM BPSK	1	1	24.75	24.75	24.59	26.50
		1	271	25.20	24.81	24.82	26.50
		135	67	25.89	25.78	25.93	26.50
		270	0	25.28	25.35	25.27	26.00
	DFT-s-OFDM QPSK	1	1	24.73	**25.14**	**25.09**	26.50
		1	271	**25.09**	24.89	24.87	26.50

		135	67	25.78	**25.85**	25.78	26.50
		270	0	24.81	**25.05**	24.74	25.50
	DFT-s-OFDM 16QAM	1	1	23.67	24.19	23.84	24.50
		1	271	24.31	24.26	23.94	24.50
		135	67	24.45	24.38	24.29	24.50
	DFT-s-OFDM 64QAM	1	1	22.32	22.74	22.74	24.00
		1	271	22.69	22.73	22.45	24.00
		135	67	23.94	23.47	23.82	24.00
	DFT-s-OFDM 256QAM	1	1	21.79	21.25	21.67	22.00
		1	271	21.65	21.33	21.60	22.00
		135	67	21.80	21.39	21.77	22.00
	CP-OFDM QPSK	1	1	22.72	22.80	23.08	24.00
	CP-OFDM 16QAM	1	1	22.44	22.95	22.83	24.00
	CP-OFDM 64QAM	1	1	20.73	21.05	21.08	22.50
	CP-OFDM 256QAM	1	1	18.02	18.74	18.41	19.50

NR n41(SA&NSA)							
Receiver on-Main Ant4				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				500202/2501.01	5185.98/2592.99	537000/2685	
10MHz	DFT-s-OFDM BPSK	1	1	19.30	19.40	19.32	21.00
		1	22	19.24	19.28	19.31	21.00
		12	6	19.91	19.86	19.95	21.00
		24	0	19.76	19.84	19.81	21.00
	DFT-s-OFDM QPSK	1	1	19.29	19.40	19.39	21.00
		1	22	19.31	19.30	19.32	21.00
		12	6	19.69	19.85	19.86	21.00
		24	0	19.46	19.60	19.69	21.00
	DFT-s-OFDM 16QAM	1	1	18.86	18.86	19.03	20.50
		1	22	18.85	18.86	18.87	20.50
		12	6	19.82	19.74	19.80	20.50
	DFT-s-OFDM 64QAM	1	1	18.99	18.93	18.99	20.50
		1	22	19.01	19.09	19.06	20.50
		12	6	19.65	19.73	19.78	20.50
	DFT-s-OFDM 256QAM	1	1	19.57	19.41	19.52	20.00
		1	22	19.63	19.42	19.60	20.00
		12	6	19.72	19.73	19.74	20.00
	CP-OFDM QPSK	1	1	19.09	18.97	19.03	20.50

	CP-OFDM 16QAM	1	1	19.40	19.34	19.40	20.50
	CP-OFDM 64QAM	1	1	19.13	19.21	19.18	20.50
	CP-OFDM 256QAM	1	1	18.31	18.39	18.44	19.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				500700/2503.5	518598/2592.99	536496/2682.48	
15MHz	DFT-s-OFDM BPSK	1	1	19.28	19.35	19.29	21.00
		1	36	19.23	19.28	19.29	21.00
		18	9	19.87	19.80	19.90	21.00
		36	0	19.74	19.80	19.78	21.00
	DFT-s-OFDM QPSK	1	1	19.27	19.36	19.34	21.00
		1	36	19.28	19.29	19.29	21.00
		18	9	19.71	19.82	19.83	21.00
		36	0	19.48	19.57	19.66	21.00
	DFT-s-OFDM 16QAM	1	1	18.88	18.85	19.01	20.50
		1	36	18.83	18.82	18.83	20.50
		18	9	19.80	19.73	19.78	20.50
	DFT-s-OFDM 64QAM	1	1	18.95	18.87	18.94	20.50
		1	36	18.99	19.05	19.03	20.50
		18	9	19.63	19.69	19.73	20.50
	DFT-s-OFDM 256QAM	1	1	19.51	19.38	19.49	20.00
		1	36	19.61	19.41	19.58	20.00
		18	9	19.73	19.72	19.74	20.00
	CP-OFDM QPSK	1	1	19.09	19.00	19.05	20.50
	CP-OFDM 16QAM	1	1	19.37	19.30	19.38	20.50
	CP-OFDM 64QAM	1	1	19.11	19.17	19.15	20.50
	CP-OFDM 256QAM	1	1	18.29	18.35	18.39	19.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				501204/2506.2	518598/2592.99	535998/2679.99	
20MHz	DFT-s-OFDM BPSK	1	1	19.25	19.31	19.26	21.00
		1	49	19.22	19.24	19.27	21.00
		25	12	19.85	19.79	19.87	21.00
		50	0	19.71	19.75	19.74	21.00
	DFT-s-OFDM QPSK	1	1	19.25	19.32	19.31	21.00
		1	49	19.25	19.24	19.25	21.00
		25	12	19.68	19.77	19.79	21.00
		50	0	19.45	19.53	19.61	21.00

	DFT-s-OFDM 16QAM	1	1	18.85	18.83	18.97	20.50
		1	49	18.80	18.79	18.81	20.50
		25	12	19.77	19.69	19.75	20.50
	DFT-s-OFDM 64QAM	1	1	18.92	18.85	18.91	20.50
		1	49	18.96	19.00	18.99	20.50
		25	12	19.61	19.65	19.70	20.50
	DFT-s-OFDM 256QAM	1	1	19.49	19.34	19.44	20.00
		1	49	19.57	19.39	19.54	20.00
		25	12	19.67	19.66	19.68	20.00
	CP-OFDM QPSK	1	1	19.04	18.92	18.98	20.50
	CP-OFDM 16QAM	1	1	19.33	19.26	19.32	20.50
	CP-OFDM 64QAM	1	1	19.08	19.12	19.11	20.50
	CP-OFDM 256QAM	1	1	18.27	18.31	18.36	19.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				502200/2511	518598/2592.99	534996/2674.98	
30MHz	DFT-s-OFDM BPSK	1	1	19.22	19.29	19.22	21.00
		1	76	19.20	19.20	19.24	21.00
		36	18	19.82	19.74	19.83	21.00
		75	0	19.68	19.70	19.70	21.00
	DFT-s-OFDM QPSK	1	1	19.23	19.28	19.26	21.00
		1	76	19.23	19.22	19.21	21.00
		36	18	19.68	19.76	19.77	21.00
		75	0	19.45	19.49	19.58	21.00
	DFT-s-OFDM 16QAM	1	1	18.85	18.81	18.94	20.50
		1	76	18.77	18.77	18.77	20.50
		36	18	19.75	19.65	19.72	20.50
	DFT-s-OFDM 64QAM	1	1	18.89	18.80	18.87	20.50
		1	76	18.93	18.95	18.95	20.50
		36	18	19.59	19.61	19.65	20.50
	DFT-s-OFDM 256QAM	1	1	19.46	19.34	19.41	20.00
		1	76	19.54	19.41	19.51	20.00
		36	18	19.68	19.64	19.64	20.00
	CP-OFDM QPSK	1	1	19.02	18.88	18.99	20.50
	CP-OFDM 16QAM	1	1	19.30	19.21	19.28	20.50
	CP-OFDM 64QAM	1	1	19.05	19.07	19.07	20.50
	CP-OFDM	1	1	18.25	18.27	18.31	19.50

	256QAM						
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				503202/2516.01	518598/2592.99	534000/2670	
40MHz	DFT-s-OFDM BPSK	1	1	19.24	19.30	19.25	21.00
		1	104	19.23	19.25	19.28	21.00
		50	25	19.84	19.78	19.86	21.00
		100	0	19.71	19.75	19.74	21.00
	DFT-s-OFDM QPSK	1	1	19.26	19.33	19.30	21.00
		1	104	19.25	19.26	19.26	21.00
		50	25	19.72	19.78	19.81	21.00
		100	0	19.49	19.52	19.60	21.00
	DFT-s-OFDM 16QAM	1	1	18.89	18.85	18.97	20.50
		1	104	18.80	18.79	18.80	20.50
		50	25	19.78	19.70	19.76	20.50
	DFT-s-OFDM 64QAM	1	1	18.91	18.84	18.90	20.50
		1	104	18.96	19.00	18.99	20.50
		50	25	19.62	19.66	19.69	20.50
	DFT-s-OFDM 256QAM	1	1	19.48	19.33	19.43	20.00
		1	104	19.57	19.41	19.54	20.00
		50	25	19.67	19.66	19.67	20.00
	CP-OFDM QPSK	1	1	19.05	18.93	18.99	20.50
	CP-OFDM 16QAM	1	1	19.32	19.25	19.31	20.50
	CP-OFDM 64QAM	1	1	19.08	19.12	19.11	20.50
	CP-OFDM 256QAM	1	1	18.28	18.32	18.35	19.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				504204/2521.02	518598/2592.99	5.33E+09	
50MHz	DFT-s-OFDM BPSK	1	1	19.23	19.26	19.23	21.00
		1	131	19.21	19.24	19.25	21.00
		64	32	19.81	19.73	19.82	21.00
		128	0	19.69	19.71	19.71	21.00
	DFT-s-OFDM QPSK	1	1	19.23	19.28	19.26	21.00
		1	131	19.22	19.23	19.22	21.00
		64	32	19.70	19.74	19.76	21.00
		128	0	19.47	19.50	19.58	21.00
	DFT-s-OFDM 16QAM	1	1	18.87	18.82	18.95	20.50
		1	131	18.78	18.75	18.77	20.50
		64	32	19.75	19.68	19.73	20.50
	DFT-s-OFDM 64QAM	1	1	18.88	18.79	18.86	20.50
		1	131	18.94	18.96	18.96	20.50

		64	32	19.59	19.61	19.65	20.50
	DFT-s-OFDM 256QAM	1	1	19.43	19.31	19.41	20.00
		1	131	19.55	19.38	19.52	20.00
		64	32	19.68	19.65	19.68	20.00
	CP-OFDM QPSK	1	1	19.04	18.95	19.00	20.50
	CP-OFDM 16QAM	1	1	19.30	19.22	19.30	20.50
	CP-OFDM 64QAM	1	1	19.06	19.08	19.08	20.50
	CP-OFDM 256QAM	1	1	18.25	18.27	18.31	19.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				505200/2526	518598/2595.99	531996/2659.98	
60MHz	DFT-s-OFDM BPSK	1	1	19.20	19.22	19.20	21.00
		1	160	19.20	19.20	19.23	21.00
		81	40	19.79	19.72	19.79	21.00
		162	0	19.66	19.66	19.67	21.00
	DFT-s-OFDM QPSK	1	1	19.21	19.24	19.23	21.00
		1	160	19.19	19.18	19.18	21.00
		81	40	19.67	19.69	19.72	21.00
		162	0	19.44	19.46	19.53	21.00
	DFT-s-OFDM 16QAM	1	1	18.84	18.80	18.91	20.50
		1	160	18.75	18.72	18.75	20.50
		81	40	19.72	19.64	19.70	20.50
	DFT-s-OFDM 64QAM	1	1	18.85	18.77	18.83	20.50
		1	160	18.91	18.91	18.92	20.50
		81	40	19.57	19.57	19.62	20.50
	DFT-s-OFDM 256QAM	1	1	19.41	19.27	19.36	20.00
		1	160	19.51	19.36	19.48	20.00
		81	40	19.62	19.59	19.62	20.00
	CP-OFDM QPSK	1	1	18.99	18.87	18.93	20.50
	CP-OFDM 16QAM	1	1	19.26	19.18	19.24	20.50
	CP-OFDM 64QAM	1	1	19.03	19.03	19.04	20.50
	CP-OFDM 256QAM	1	1	18.23	18.23	18.28	19.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				507204/2536.02	518598/2595.99	529998/2649.99	
80MHz	DFT-s-OFDM BPSK	1	1	19.17	19.20	19.16	21.00
		1	215	19.18	19.16	19.20	21.00

		108	54	19.76	19.67	19.75	21.00
		216	0	19.63	19.61	19.63	21.00
	DFT-s-OFDM QPSK	1	1	19.19	19.20	19.18	21.00
		1	215	19.17	19.16	19.14	21.00
		108	54	19.67	19.68	19.70	21.00
		216	0	19.44	19.42	19.50	21.00
	DFT-s-OFDM 16QAM	1	1	18.84	18.78	18.88	20.50
		1	215	18.72	18.70	18.71	20.50
		108	54	19.70	19.60	19.67	20.50
	DFT-s-OFDM 64QAM	1	1	18.82	18.72	18.79	20.50
		1	215	18.88	18.86	18.88	20.50
		108	54	19.55	19.53	19.57	20.50
	DFT-s-OFDM 256QAM	1	1	19.38	19.27	19.33	20.00
		1	215	19.48	19.38	19.45	20.00
		108	54	19.63	19.57	19.58	20.00
	CP-OFDM QPSK	1	1	18.97	18.83	18.94	20.50
	CP-OFDM 16QAM	1	1	19.23	19.13	19.20	20.50
	CP-OFDM 64QAM	1	1	19.00	18.98	19.00	20.50
	CP-OFDM 256QAM	1	1	18.21	18.19	18.23	19.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				508200/2541	518598/2595.99	528996/2644.98	
90MHz	DFT-s-OFDM BPSK	1	1	19.19	19.21	19.19	21.00
		1	243	19.21	19.21	19.24	21.00
		120	60	19.78	19.71	19.78	21.00
		243	0	19.66	19.66	19.67	21.00
	DFT-s-OFDM QPSK	1	1	19.22	19.25	19.22	21.00
		1	243	19.19	19.20	19.19	21.00
		120	60	19.71	19.70	19.74	21.00
		243	0	19.48	19.45	19.52	21.00
	DFT-s-OFDM 16QAM	1	1	18.88	18.82	18.91	20.50
		1	243	18.75	18.72	18.74	20.50
		120	60	19.73	19.65	19.71	20.50
	DFT-s-OFDM 64QAM	1	1	18.84	18.76	18.82	20.50
		1	243	18.91	18.91	18.92	20.50
		120	60	19.58	19.58	19.61	20.50
	DFT-s-OFDM 256QAM	1	1	19.40	19.26	19.35	20.00
		1	243	19.51	19.38	19.48	20.00
		120	60	19.62	19.59	19.61	20.00
	CP-OFDM	1	1	19.00	18.88	18.94	20.50

	QPSK						
	CP-OFDM 16QAM	1	1	19.25	19.17	19.23	20.50
	CP-OFDM 64QAM	1	1	19.03	19.03	19.04	20.50
	CP-OFDM 256QAM	1	1	18.24	18.24	18.27	19.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				509202/2546.01	518598/2592.99	528000/2640	
100MHz	DFT-s-OFDM BPSK	1	1	19.15	19.13	19.14	21.00
		1	271	19.18	19.16	19.19	21.00
		135	67	19.73	19.65	19.71	21.00
		270	0	19.61	19.57	19.60	21.00
	DFT-s-OFDM QPSK	1	1	**19.17**	**19.16**	**19.15**	21.00
		1	271	19.13	19.12	19.11	21.00
		135	67	**19.66**	19.61	19.65	21.00
		270	0	19.43	19.39	**19.45**	21.00
	DFT-s-OFDM 16QAM	1	1	18.83	18.77	18.85	20.50
		1	271	18.70	18.65	18.69	20.50
		135	67	19.67	19.59	19.65	20.50
	DFT-s-OFDM 64QAM	1	1	18.78	18.69	18.75	20.50
		1	271	18.86	18.82	18.85	20.50
		135	67	19.53	19.49	19.54	20.50
	DFT-s-OFDM 256QAM	1	1	19.33	19.20	19.28	20.00
		1	271	19.45	19.33	19.42	20.00
		135	67	19.57	19.52	19.56	20.00
	CP-OFDM QPSK	1	1	18.94	18.82	18.88	20.50
	CP-OFDM 16QAM	1	1	19.19	19.10	19.16	20.50
	CP-OFDM 64QAM	1	1	18.98	18.94	18.97	20.50
	CP-OFDM 256QAM	1	1	18.19	18.15	18.20	19.50

NR n41(SA&NSA)							
Receiver off-Main Ant4				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				500202/2501.01	5185.98/2592.99	537000/2685	
10MHz	DFT-s-OFDM BPSK	1	1	19.26	19.25	19.18	20.50
		1	22	19.14	19.13	19.13	20.50
		12	6	19.97	19.86	19.95	20.50
		24	0	19.72	19.68	19.67	20.50

	DFT-s-OFDM QPSK	1	1	19.22	19.20	19.21	20.50
		1	22	19.20	19.07	19.09	20.50
		12	6	19.79	19.87	19.88	20.50
		24	0	19.47	19.50	19.59	20.50
	DFT-s-OFDM 16QAM	1	1	18.86	18.83	18.93	20.50
		1	22	18.74	18.69	18.66	20.50
		12	6	19.84	19.71	19.73	20.50
	DFT-s-OFDM 64QAM	1	1	19.11	18.97	19.03	20.50
		1	22	18.81	18.77	18.76	20.50
		12	6	19.77	19.75	19.76	20.50
	DFT-s-OFDM 256QAM	1	1	19.79	19.65	19.70	20.50
		1	22	19.44	19.30	19.36	20.50
		12	6	19.99	19.83	19.81	20.50
	CP-OFDM QPSK	1	1	19.32	19.17	19.27	20.50
	CP-OFDM 16QAM	1	1	19.61	19.46	19.53	20.50
	CP-OFDM 64QAM	1	1	19.36	19.32	19.31	20.50
	CP-OFDM 256QAM	1	1	18.76	18.74	18.75	19.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				500700/2503.5	518598/2592.99	536496/2682.48	
15MHz	DFT-s-OFDM BPSK	1	1	19.18	19.12	19.09	20.50
		1	36	19.11	19.05	19.07	20.50
		18	9	19.89	19.78	19.84	20.50
		36	0	19.64	19.54	19.56	20.50
	DFT-s-OFDM QPSK	1	1	19.16	19.08	19.10	20.50
		1	36	19.11	18.96	18.98	20.50
		18	9	19.75	19.74	19.77	20.50
		36	0	19.43	19.39	19.46	20.50
	DFT-s-OFDM 16QAM	1	1	18.82	18.78	18.83	20.50
		1	36	18.66	18.59	18.58	20.50
		18	9	19.76	19.62	19.65	20.50
	DFT-s-OFDM 64QAM	1	1	19.01	18.87	18.92	20.50
		1	36	18.73	18.63	18.65	20.50
		18	9	19.71	19.63	19.65	20.50
	DFT-s-OFDM 256QAM	1	1	19.69	19.54	19.57	20.50
		1	36	19.34	19.25	19.26	20.50
		18	9	19.88	19.70	19.69	20.50
	CP-OFDM QPSK	1	1	19.22	19.04	19.15	20.50
	CP-OFDM	1	1	19.50	19.34	19.39	20.50

	16QAM						
	CP-OFDM 64QAM	1	1	19.28	19.18	19.20	20.50
	CP-OFDM 256QAM	1	1	18.70	18.62	18.64	19.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				501204/2506.2	518598/2592.99	535998/2679.99	
20MHz	DFT-s-OFDM BPSK	1	1	19.27	19.29	19.20	20.50
		1	49	19.16	19.14	19.16	20.50
		25	12	20.00	19.91	19.99	20.50
		50	0	19.74	19.72	19.70	20.50
	DFT-s-OFDM QPSK	1	1	19.25	19.25	19.25	20.50
		1	49	19.23	19.10	19.13	20.50
		25	12	19.81	19.91	19.93	20.50
		50	0	19.49	19.52	19.61	20.50
	DFT-s-OFDM 16QAM	1	1	18.88	18.86	18.95	20.50
		1	49	18.76	18.73	18.69	20.50
		25	12	19.87	19.73	19.76	20.50
	DFT-s-OFDM 64QAM	1	1	19.14	19.02	19.07	20.50
		1	49	18.83	18.81	18.79	20.50
		25	12	19.80	19.80	19.80	20.50
	DFT-s-OFDM 256QAM	1	1	19.84	19.67	19.72	20.50
		1	49	19.46	19.33	19.38	20.50
		25	12	19.98	19.84	19.80	20.50
	CP-OFDM QPSK	1	1	19.33	19.15	19.26	20.50
	CP-OFDM 16QAM	1	1	19.63	19.49	19.54	20.50
	CP-OFDM 64QAM	1	1	19.38	19.36	19.34	20.50
	CP-OFDM 256QAM	1	1	18.79	18.79	18.79	19.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				502200/2511	518598/2592.99	534996/2674.98	
30MHz	DFT-s-OFDM BPSK	1	1	19.21	19.14	19.13	20.50
		1	76	19.13	19.09	19.10	20.50
		36	18	19.92	19.83	19.88	20.50
		75	0	19.67	19.59	19.60	20.50
	DFT-s-OFDM QPSK	1	1	19.18	19.12	19.15	20.50
		1	76	19.13	18.98	19.02	20.50
		36	18	19.75	19.75	19.79	20.50
		75	0	19.43	19.43	19.49	20.50
	DFT-s-OFDM	1	1	18.82	18.80	18.86	20.50

	16QAM	1	76	18.69	18.61	18.62	20.50
		36	18	19.78	19.66	19.68	20.50
	DFT-s-OFDM 64QAM	1	1	19.04	18.92	18.96	20.50
		1	76	18.76	18.68	18.69	20.50
		36	18	19.73	19.67	19.70	20.50
	DFT-s-OFDM 256QAM	1	1	19.72	19.54	19.60	20.50
		1	76	19.37	19.23	19.29	20.50
		36	18	19.87	19.72	19.73	20.50
	CP-OFDM QPSK	1	1	19.24	19.08	19.14	20.50
	CP-OFDM 16QAM	1	1	19.53	19.39	19.43	20.50
	CP-OFDM 64QAM	1	1	19.31	19.23	19.24	20.50
	CP-OFDM 256QAM	1	1	18.72	18.66	18.69	19.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				503202/2516.01	518598/2592.99	534000/2670	
40MHz	DFT-s-OFDM BPSK	1	1	19.25	19.28	19.17	20.50
		1	104	19.13	19.09	19.12	20.50
		50	25	19.98	19.87	19.96	20.50
		100	0	19.71	19.67	19.66	20.50
	DFT-s-OFDM QPSK	1	1	19.22	19.20	19.21	20.50
		1	104	19.21	19.06	19.08	20.50
		50	25	19.77	19.89	19.89	20.50
		100	0	19.45	19.49	19.59	20.50
	DFT-s-OFDM 16QAM	1	1	18.84	18.82	18.92	20.50
		1	104	18.73	18.71	18.66	20.50
		50	25	19.84	19.68	19.72	20.50
	DFT-s-OFDM 64QAM	1	1	19.12	18.98	19.04	20.50
		1	104	18.80	18.76	18.75	20.50
		50	25	19.77	19.75	19.76	20.50
	DFT-s-OFDM 256QAM	1	1	19.82	19.68	19.70	20.50
		1	104	19.43	19.33	19.35	20.50
		50	25	19.99	19.82	19.77	20.50
	CP-OFDM QPSK	1	1	19.30	19.10	19.26	20.50
	CP-OFDM 16QAM	1	1	19.61	19.45	19.51	20.50
	CP-OFDM 64QAM	1	1	19.35	19.31	19.30	20.50
	CP-OFDM 256QAM	1	1	18.76	18.74	18.75	19.50

Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				504204/2521.02	518598/2592.99	5.33E+09	
50MHz	DFT-s-OFDM BPSK	1	1	19.28	19.30	19.21	20.50
		1	131	19.15	19.13	19.15	20.50
		64	32	20.01	19.92	20.00	20.50
		128	0	19.74	19.72	19.70	20.50
	DFT-s-OFDM QPSK	1	1	19.24	19.24	19.26	20.50
		1	131	19.23	19.08	19.12	20.50
		64	32	19.77	19.90	19.91	20.50
		128	0	19.45	19.53	19.62	20.50
	DFT-s-OFDM 16QAM	1	1	18.84	18.84	18.95	20.50
		1	131	18.76	18.73	18.70	20.50
		64	32	19.86	19.72	19.75	20.50
	DFT-s-OFDM 64QAM	1	1	19.15	19.03	19.08	20.50
		1	131	18.83	18.81	18.79	20.50
		64	32	19.79	19.79	19.81	20.50
	DFT-s-OFDM 256QAM	1	1	19.85	19.68	19.73	20.50
		1	131	19.46	19.31	19.38	20.50
		64	32	19.98	19.84	19.81	20.50
	CP-OFDM QPSK	1	1	19.32	19.14	19.25	20.50
	CP-OFDM 16QAM	1	1	19.64	19.50	19.55	20.50
	CP-OFDM 64QAM	1	1	19.38	19.36	19.34	20.50
	CP-OFDM 256QAM	1	1	18.78	18.78	18.80	19.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				505200/2526	518598/2595.99	531996/2659.98	
60MHz	DFT-s-OFDM BPSK	1	1	19.31	19.34	19.24	20.50
		1	160	19.16	19.17	19.17	20.50
		81	40	20.03	19.93	20.03	20.50
		162	0	19.77	19.77	19.74	20.50
	DFT-s-OFDM QPSK	1	1	19.26	19.28	19.29	20.50
		1	160	19.26	19.13	19.16	20.50
		81	40	19.80	19.95	19.95	20.50
		162	0	19.48	19.57	19.67	20.50
	DFT-s-OFDM 16QAM	1	1	18.87	18.86	18.99	20.50
		1	160	18.79	18.76	18.72	20.50
		81	40	19.89	19.76	19.78	20.50
	DFT-s-OFDM 64QAM	1	1	19.18	19.05	19.11	20.50
		1	160	18.86	18.86	18.83	20.50
		81	40	19.81	19.83	19.84	20.50

	DFT-s-OFDM 256QAM	1	1	19.87	19.72	19.78	20.50
		1	160	19.50	19.33	19.42	20.50
		81	40	20.04	19.90	19.87	20.50
	CP-OFDM QPSK	1	1	19.37	19.22	19.32	20.50
	CP-OFDM 16QAM	1	1	19.68	19.54	19.61	20.50
	CP-OFDM 64QAM	1	1	19.41	19.41	19.38	20.50
	CP-OFDM 256QAM	1	1	18.80	18.82	18.83	19.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				507204/2536.02	518598/2595.99	529998/2649.99	
80MHz	DFT-s-OFDM BPSK	1	1	19.32	19.38	19.26	20.50
		1	215	19.18	19.18	19.20	20.50
		108	54	20.06	19.98	20.07	20.50
		216	0	19.79	19.81	19.77	20.50
	DFT-s-OFDM QPSK	1	1	19.29	19.33	19.33	20.50
		1	215	19.29	19.16	19.20	20.50
		108	54	19.82	19.99	20.00	20.50
		216	0	19.50	19.59	19.69	20.50
	DFT-s-OFDM 16QAM	1	1	18.89	18.89	19.01	20.50
		1	215	18.81	18.80	18.75	20.50
		108	54	19.92	19.78	19.81	20.50
	DFT-s-OFDM 64QAM	1	1	19.21	19.10	19.15	20.50
		1	215	18.88	18.90	18.86	20.50
		108	54	19.84	19.88	19.88	20.50
	DFT-s-OFDM 256QAM	1	1	19.92	19.74	19.80	20.50
		1	215	19.52	19.36	19.44	20.50
		108	54	20.03	19.91	19.86	20.50
	CP-OFDM QPSK	1	1	19.38	19.20	19.31	20.50
	CP-OFDM 16QAM	1	1	19.70	19.57	19.62	20.50
	CP-OFDM 64QAM	1	1	19.43	19.45	19.41	20.50
	CP-OFDM 256QAM	1	1	18.83	18.87	18.87	19.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				508200/2541	518598/2595.99	528996/2644.98	
90MHz	DFT-s-OFDM BPSK	1	1	19.20	19.13	19.12	20.50
		1	243	19.14	19.10	19.11	20.50
		120	60	19.91	19.82	19.87	20.50

		243	0	19.67	19.59	19.60	20.50
	DFT-s-OFDM QPSK	1	1	19.19	19.13	19.14	20.50
		1	243	19.13	19.00	19.03	20.50
		120	60	19.79	19.76	19.81	20.50
		243	0	19.47	19.42	19.48	20.50
	DFT-s-OFDM 16QAM	1	1	18.86	18.82	18.86	20.50
		1	243	18.69	18.61	18.61	20.50
		120	60	19.79	19.67	19.69	20.50
	DFT-s-OFDM 64QAM	1	1	19.03	18.91	18.95	20.50
		1	243	18.76	18.68	18.69	20.50
		120	60	19.74	19.68	19.69	20.50
	DFT-s-OFDM 256QAM	1	1	19.71	19.53	19.59	20.50
		1	243	19.37	19.25	19.29	20.50
		120	60	19.87	19.72	19.72	20.50
	CP-OFDM QPSK	1	1	19.25	19.09	19.15	20.50
	CP-OFDM 16QAM	1	1	19.52	19.38	19.42	20.50
	CP-OFDM 64QAM	1	1	19.31	19.23	19.24	20.50
	CP-OFDM 256QAM	1	1	18.73	18.67	18.68	19.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				509202/2546.01	518598/2592.99	528000/2640	
100MHz	DFT-s-OFDM BPSK	1	1	19.16	19.05	19.07	20.50
		1	271	19.11	19.05	19.06	20.50
		135	67	19.86	19.76	19.80	20.50
		270	0	19.62	19.50	19.53	20.50
	DFT-s-OFDM QPSK	1	1	**19.14**	**19.04**	**19.07**	20.50
		1	271	19.07	18.92	18.95	20.50
		135	67	**19.74**	19.67	19.72	20.50
		270	0	**19.42**	19.36	19.41	20.50
	DFT-s-OFDM 16QAM	1	1	18.81	18.77	18.80	20.50
		1	271	18.64	18.54	18.56	20.50
		135	67	19.73	19.61	19.63	20.50
	DFT-s-OFDM 64QAM	1	1	18.97	18.84	18.88	20.50
		1	271	18.71	18.59	18.62	20.50
		135	67	19.69	19.59	19.62	20.50
	DFT-s-OFDM 256QAM	1	1	19.64	19.47	19.52	20.50
		1	271	19.31	19.20	19.23	20.50
		135	67	19.82	19.65	19.67	20.50
	CP-OFDM QPSK	1	1	19.42	19.03	19.09	20.50

	CP-OFDM 16QAM	1	1	19.46	19.31	19.35	20.50
	CP-OFDM 64QAM	1	1	19.26	19.14	19.17	20.50
	CP-OFDM 256QAM	1	1	18.68	18.58	18.61	19.50

NR n41(SA&NSA)							
Hotspot on-Main Ant4				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				500202/2501.01	5185.98/2592.99	537000/2685	
10MHz	DFT-s-OFDM BPSK	1	1	17.78	17.84	17.76	19.00
		1	22	17.58	17.57	17.63	19.00
		12	6	18.19	18.10	18.20	19.00
		24	0	17.96	17.97	17.98	19.00
	DFT-s-OFDM QPSK	1	1	17.84	17.87	17.91	19.00
		1	22	17.81	17.69	17.78	19.00
		12	6	18.29	18.42	18.48	19.00
		24	0	18.01	18.06	18.20	19.00
	DFT-s-OFDM 16QAM	1	1	17.25	17.23	17.37	18.50
		1	22	17.25	17.24	17.22	18.50
		12	6	17.66	17.53	17.60	18.50
	DFT-s-OFDM 64QAM	1	1	17.52	17.41	17.48	18.50
		1	22	17.32	17.33	17.34	18.50
		12	6	18.22	18.25	18.29	18.50
	DFT-s-OFDM 256QAM	1	1	18.20	18.02	18.12	18.50
		1	22	17.94	17.78	17.88	18.50
		12	6	18.28	18.20	18.21	18.50
	CP-OFDM QPSK	1	1	17.74	17.53	17.72	18.50
	CP-OFDM 16QAM	1	1	17.98	17.85	17.94	18.50
	CP-OFDM 64QAM	1	1	17.74	17.75	17.76	18.50
	CP-OFDM 256QAM	1	1	17.44	17.47	17.51	18.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				500700/2503.5	518598/2592.99	536496/2682.48	
15MHz	DFT-s-OFDM BPSK	1	1	17.77	17.80	17.74	19.00
		1	36	17.56	17.56	17.60	19.00
		18	9	18.16	18.05	18.16	19.00
		36	0	17.94	17.93	17.95	19.00
	DFT-s-OFDM	1	1	17.81	17.82	17.87	19.00

	QPSK	1	36	17.78	17.66	17.74	19.00
		18	9	18.27	18.38	18.43	19.00
		36	0	17.99	18.04	18.18	19.00
	DFT-s-OFDM 16QAM	1	1	17.23	17.20	17.35	18.50
		1	36	17.23	17.20	17.19	18.50
		18	9	17.63	17.51	17.57	18.50
	DFT-s-OFDM 64QAM	1	1	17.49	17.36	17.44	18.50
		1	36	17.30	17.29	17.31	18.50
		18	9	18.19	18.20	18.25	18.50
	DFT-s-OFDM 256QAM	1	1	18.15	18.00	18.10	18.50
		1	36	17.92	17.75	17.86	18.50
		18	9	18.29	18.19	18.22	18.50
	CP-OFDM QPSK	1	1	17.73	17.55	17.73	18.50
	CP-OFDM 16QAM	1	1	17.96	17.82	17.93	18.50
	CP-OFDM 64QAM	1	1	17.72	17.71	17.73	18.50
	CP-OFDM 256QAM	1	1	17.41	17.42	17.47	18.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				501204/2506.2	518598/2592.99	535998/2679.99	
20MHz	DFT-s-OFDM BPSK	1	1	17.74	17.76	17.71	19.00
		1	49	17.55	17.52	17.58	19.00
		25	12	18.14	18.04	18.13	19.00
		50	0	17.91	17.88	17.91	19.00
	DFT-s-OFDM QPSK	1	1	17.79	17.78	17.84	19.00
		1	49	17.75	17.61	17.70	19.00
		25	12	18.24	18.33	18.39	19.00
		50	0	17.96	18.00	18.13	19.00
	DFT-s-OFDM 16QAM	1	1	17.20	17.18	17.31	18.50
		1	49	17.20	17.17	17.17	18.50
		25	12	17.60	17.47	17.54	18.50
	DFT-s-OFDM 64QAM	1	1	17.46	17.34	17.41	18.50
		1	49	17.27	17.24	17.27	18.50
		25	12	18.17	18.16	18.22	18.50
	DFT-s-OFDM 256QAM	1	1	18.13	17.96	18.05	18.50
		1	49	17.88	17.73	17.82	18.50
		25	12	18.23	18.13	18.16	18.50
	CP-OFDM QPSK	1	1	17.68	17.47	17.66	18.50
	CP-OFDM 16QAM	1	1	17.92	17.78	17.87	18.50

	CP-OFDM 64QAM	1	1	17.69	17.66	17.69	18.50
	CP-OFDM 256QAM	1	1	17.39	17.38	17.44	18.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				502200/2511	518598/2592.99	534996/2674.98	
30MHz	DFT-s-OFDM BPSK	1	1	17.71	17.74	17.67	19.00
		1	76	17.53	17.48	17.55	19.00
		36	18	18.11	17.99	18.09	19.00
		75	0	17.88	17.83	17.87	19.00
	DFT-s-OFDM QPSK	1	1	17.77	17.74	17.79	19.00
		1	76	17.73	17.59	17.66	19.00
		36	18	18.24	18.32	18.37	19.00
		75	0	17.96	17.96	18.10	19.00
	DFT-s-OFDM 16QAM	1	1	17.20	17.16	17.28	18.50
		1	76	17.17	17.15	17.13	18.50
		36	18	17.58	17.43	17.51	18.50
	DFT-s-OFDM 64QAM	1	1	17.43	17.29	17.37	18.50
		1	76	17.24	17.19	17.23	18.50
		36	18	18.15	18.12	18.17	18.50
	DFT-s-OFDM 256QAM	1	1	18.10	17.96	18.02	18.50
		1	76	17.85	17.75	17.79	18.50
		36	18	18.24	18.11	18.12	18.50
	CP-OFDM QPSK	1	1	17.66	17.43	17.67	18.50
	CP-OFDM 16QAM	1	1	17.89	17.73	17.83	18.50
	CP-OFDM 64QAM	1	1	17.66	17.61	17.65	18.50
	CP-OFDM 256QAM	1	1	17.37	17.34	17.39	18.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				503202/2516.01	518598/2592.99	534000/2670	
40MHz	DFT-s-OFDM BPSK	1	1	17.64	17.58	17.59	19.00
		1	104	17.51	17.44	17.50	19.00
		50	25	18.02	17.90	17.97	19.00
		100	0	17.81	17.70	17.77	19.00
	DFT-s-OFDM QPSK	1	1	17.71	17.62	17.68	19.00
		1	104	17.63	17.49	17.56	19.00
		50	25	18.22	18.17	18.25	19.00
		100	0	17.94	17.86	17.97	19.00
	DFT-s-OFDM 16QAM	1	1	17.18	17.12	17.19	18.50
		1	104	17.10	17.03	17.05	18.50

		50	25	17.50	17.37	17.44	18.50
	DFT-s-OFDM 64QAM	1	1	17.32	17.18	17.25	18.50
		1	104	17.17	17.06	17.13	18.50
		50	25	18.09	18.00	18.06	18.50
	DFT-s-OFDM 256QAM	1	1	17.97	17.82	17.89	18.50
		1	104	17.76	17.67	17.70	18.50
		50	25	18.13	17.99	18.04	18.50
	CP-OFDM QPSK	1	1	17.58	17.37	17.56	18.50
	CP-OFDM 16QAM	1	1	17.78	17.62	17.71	18.50
	CP-OFDM 64QAM	1	1	17.59	17.48	17.55	18.50
	CP-OFDM 256QAM	1	1	17.31	17.22	17.28	18.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				504204/2521.02	518598/2592.99	5.33E+09	
50MHz	DFT-s-OFDM BPSK	1	1	17.73	17.75	17.70	19.00
		1	131	17.56	17.53	17.59	19.00
		64	32	18.13	18.03	18.12	19.00
		128	0	17.91	17.88	17.91	19.00
	DFT-s-OFDM QPSK	1	1	17.80	17.79	17.83	19.00
		1	131	17.75	17.63	17.71	19.00
		64	32	18.28	18.34	18.41	19.00
		128	0	18.00	17.99	18.12	19.00
	DFT-s-OFDM 16QAM	1	1	17.24	17.20	17.31	18.50
		1	131	17.20	17.17	17.16	18.50
		64	32	17.61	17.48	17.55	18.50
	DFT-s-OFDM 64QAM	1	1	17.45	17.33	17.40	18.50
		1	131	17.27	17.24	17.27	18.50
		64	32	18.18	18.17	18.21	18.50
	DFT-s-OFDM 256QAM	1	1	18.12	17.95	18.04	18.50
		1	131	17.88	17.75	17.82	18.50
		64	32	18.23	18.13	18.15	18.50
	CP-OFDM QPSK	1	1	17.69	17.48	17.67	18.50
	CP-OFDM 16QAM	1	1	17.91	17.77	17.86	18.50
	CP-OFDM 64QAM	1	1	17.69	17.66	17.69	18.50
	CP-OFDM 256QAM	1	1	17.40	17.39	17.43	18.50

Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				505200/2526	518598/2595.99	531996/2659.98	
60MHz	DFT-s-OFDM BPSK	1	1	17.72	17.71	17.68	19.00
		1	160	17.54	17.52	17.56	19.00
		81	40	18.10	17.98	18.08	19.00
		162	0	17.89	17.84	17.88	19.00
	DFT-s-OFDM QPSK	1	1	17.77	17.74	17.79	19.00
		1	160	17.72	17.60	17.67	19.00
		81	40	18.26	18.30	18.36	19.00
		162	0	17.98	17.97	18.10	19.00
	DFT-s-OFDM 16QAM	1	1	17.22	17.17	17.29	18.50
		1	160	17.18	17.13	17.13	18.50
		81	40	17.58	17.46	17.52	18.50
	DFT-s-OFDM 64QAM	1	1	17.42	17.28	17.36	18.50
		1	160	17.25	17.20	17.24	18.50
		81	40	18.15	18.12	18.17	18.50
	DFT-s-OFDM 256QAM	1	1	18.07	17.93	18.02	18.50
		1	160	17.86	17.72	17.80	18.50
		81	40	18.24	18.12	18.16	18.50
	CP-OFDM QPSK	1	1	17.68	17.50	17.68	18.50
	CP-OFDM 16QAM	1	1	17.89	17.74	17.85	18.50
	CP-OFDM 64QAM	1	1	17.67	17.62	17.66	18.50
	CP-OFDM 256QAM	1	1	17.37	17.34	17.39	18.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				507204/2536.02	518598/2595.99	529998/2649.99	
80MHz	DFT-s-OFDM BPSK	1	1	17.66	17.59	17.62	19.00
		1	215	17.54	17.49	17.54	19.00
		108	54	18.04	17.94	18.00	19.00
		216	0	17.84	17.75	17.81	19.00
	DFT-s-OFDM QPSK	1	1	17.74	17.67	17.72	19.00
		1	215	17.65	17.53	17.61	19.00
		108	54	18.26	18.19	18.29	19.00
		216	0	17.98	17.89	17.99	19.00
	DFT-s-OFDM 16QAM	1	1	17.22	17.16	17.22	18.50
		1	215	17.13	17.05	17.08	18.50
		108	54	17.53	17.42	17.48	18.50
	DFT-s-OFDM 64QAM	1	1	17.34	17.22	17.28	18.50
		1	215	17.20	17.11	17.17	18.50
		108	54	18.12	18.05	18.10	18.50

	DFT-s-OFDM 256QAM	1	1	17.99	17.81	17.91	18.50
		1	215	17.79	17.67	17.73	18.50
		108	54	18.12	18.01	18.07	18.50
	CP-OFDM QPSK	1	1	17.61	17.42	17.56	18.50
	CP-OFDM 16QAM	1	1	17.80	17.66	17.74	18.50
	CP-OFDM 64QAM	1	1	17.62	17.53	17.59	18.50
	CP-OFDM 256QAM	1	1	17.34	17.27	17.32	18.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				508200/2541	518598/2595.99	528996/2644.98	
90MHz	DFT-s-OFDM BPSK	1	1	17.65	17.55	17.60	19.00
		1	243	17.52	17.48	17.51	19.00
		120	60	18.01	17.89	17.96	19.00
		243	0	17.82	17.71	17.78	19.00
	DFT-s-OFDM QPSK	1	1	17.71	17.62	17.68	19.00
		1	243	17.62	17.50	17.57	19.00
		120	60	18.24	18.15	18.24	19.00
		243	0	17.96	17.87	17.97	19.00
	DFT-s-OFDM 16QAM	1	1	17.20	17.13	17.20	18.50
		1	243	17.11	17.01	17.05	18.50
		120	60	17.50	17.40	17.45	18.50
	DFT-s-OFDM 64QAM	1	1	17.31	17.17	17.24	18.50
		1	243	17.18	17.07	17.14	18.50
		120	60	18.09	18.00	18.06	18.50
	DFT-s-OFDM 256QAM	1	1	17.94	17.79	17.89	18.50
		1	243	17.77	17.64	17.71	18.50
		120	60	18.13	18.00	18.08	18.50
	CP-OFDM QPSK	1	1	17.60	17.44	17.57	18.50
	CP-OFDM 16QAM	1	1	17.78	17.63	17.73	18.50
	CP-OFDM 64QAM	1	1	17.60	17.49	17.56	18.50
	CP-OFDM 256QAM	1	1	17.31	17.22	17.28	18.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				509202/2546.01	518598/2592.99	528000/2640	
100MHz	DFT-s-OFDM BPSK	1	1	17.62	17.51	17.57	19.00
		1	271	17.51	17.44	17.49	19.00
		135	67	17.99	17.88	17.93	19.00

		270	0	17.79	17.66	17.74	19.00
	DFT-s-OFDM QPSK	1	1	**17.84**	**17.58**	**17.65**	19.00
		1	271	17.59	17.45	17.53	19.00
		135	67	**18.21**	18.10	18.20	19.00
		270	0	**17.93**	17.83	17.92	19.00
	DFT-s-OFDM 16QAM	1	1	17.17	17.11	17.16	18.50
		1	271	17.08	16.98	17.03	18.50
		135	67	17.47	17.36	17.42	18.50
	DFT-s-OFDM 64QAM	1	1	17.28	17.15	17.21	18.50
		1	271	17.15	17.02	17.10	18.50
		135	67	18.07	17.96	18.03	18.50
	DFT-s-OFDM 256QAM	1	1	17.92	17.75	17.84	18.50
		1	271	17.73	17.62	17.67	18.50
		135	67	18.07	17.94	18.02	18.50
	CP-OFDM QPSK	1	1	17.55	17.36	17.50	18.50
	CP-OFDM 16QAM	1	1	17.74	17.59	17.67	18.50
	CP-OFDM 64QAM	1	1	17.57	17.44	17.52	18.50
	CP-OFDM 256QAM	1	1	17.29	17.18	17.25	18.50

NR n48(SA)							
Normal power-Main Ant2				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				637000/3555	641666/3624.99	646332/3694.98	
10MHz	DFT-s-OFDM BPSK	1	1	21.21	21.59	21.48	23.00
		1	22	21.05	21.09	21.06	23.00
		12	6	22.47	22.17	21.87	23.00
		24	0	21.64	21.48	21.23	22.50
	DFT-s-OFDM QPSK	1	1	21.17	21.58	21.51	23.00
		1	22	21.07	21.08	21.17	23.00
		12	6	22.24	22.14	21.81	23.00
		24	0	21.03	20.89	20.70	22.00
	DFT-s-OFDM 16QAM	1	1	19.96	20.31	20.24	21.50
		1	22	19.65	19.65	19.68	21.50
		12	6	21.35	21.10	20.79	21.50
	DFT-s-OFDM 64QAM	1	1	18.50	18.87	18.77	20.00
		1	22	18.27	19.51	18.43	20.00
		12	6	19.84	19.60	19.29	20.00
	DFT-s-OFDM 256QAM	1	1	17.41	17.77	17.67	18.50
		1	22	16.99	16.81	16.96	18.50

		12	6	18.05	17.74	17.44	18.50
	CP-OFDM QPSK	1	1	19.71	20.06	19.98	21.00
	CP-OFDM 16QAM	1	1	19.48	19.84	19.75	20.50
	CP-OFDM 64QAM	1	1	18.12	18.53	18.41	19.50
	CP-OFDM 256QAM	1	1	14.77	15.18	15.09	16.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				637168/3557.52	641666/3624.99	646166/3692.49	
15MHz	DFT-s-OFDM BPSK	1	1	21.24	21.63	21.51	23.00
		1	36	21.06	21.13	21.08	23.00
		18	9	22.49	22.18	21.90	23.00
		36	0	21.67	21.53	21.27	22.50
	DFT-s-OFDM QPSK	1	1	21.19	21.62	21.54	23.00
		1	36	21.10	21.13	21.21	23.00
		18	9	22.27	22.19	21.85	23.00
		36	0	21.06	20.93	20.75	22.00
	DFT-s-OFDM 16QAM	1	1	19.99	20.33	20.28	21.50
		1	36	19.68	19.68	19.70	21.50
		18	9	21.38	21.14	20.82	21.50
	DFT-s-OFDM 64QAM	1	1	18.53	18.89	18.80	20.00
		1	36	18.30	19.56	18.47	20.00
		18	9	19.86	19.64	19.32	20.00
	DFT-s-OFDM 256QAM	1	1	17.43	17.81	17.72	18.50
		1	36	17.03	16.83	17.00	18.50
		18	9	18.11	17.80	17.50	18.50
	CP-OFDM QPSK	1	1	19.76	20.14	20.05	21.00
	CP-OFDM 16QAM	1	1	19.52	19.88	19.81	20.50
	CP-OFDM 64QAM	1	1	18.15	18.58	18.45	19.50
	CP-OFDM 256QAM	1	1	14.79	15.22	15.12	16.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				637334/3560.01	641666/3624.99	646000/3690	
20MHz	DFT-s-OFDM BPSK	1	1	21.25	21.67	21.53	23.00
		1	49	21.08	21.14	21.11	23.00
		25	12	22.52	22.23	21.94	23.00
		50	0	21.69	21.57	21.30	22.50
	DFT-s-OFDM	1	1	21.22	21.67	21.58	23.00

	QPSK	1	49	21.13	21.16	21.25	23.00
		25	12	22.29	22.23	21.90	23.00
		50	0	21.08	20.95	20.77	22.00
	DFT-s-OFDM 16QAM	1	1	20.01	20.36	20.30	21.50
		1	49	19.70	19.72	19.73	21.50
		25	12	21.41	21.16	20.85	21.50
	DFT-s-OFDM 64QAM	1	1	18.56	18.94	18.84	20.00
		1	49	18.32	19.60	18.50	20.00
		25	12	19.89	19.69	19.36	20.00
	DFT-s-OFDM 256QAM	1	1	17.48	17.83	17.74	18.50
		1	49	17.05	16.86	17.02	18.50
		25	12	18.10	17.81	17.49	18.50
	CP-OFDM QPSK	1	1	19.77	20.12	20.04	21.00
	CP-OFDM 16QAM	1	1	19.54	19.91	19.82	20.50
	CP-OFDM 64QAM	1	1	18.17	18.62	18.48	19.50
	CP-OFDM 256QAM	1	1	14.82	15.27	15.16	16.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				638000/3570	641666/3624.99	645332/3679.98	
40MHz	DFT-s-OFDM BPSK	1	1	21.23	21.66	21.50	23.00
		1	104	21.05	21.09	21.07	23.00
		50	25	22.50	22.19	21.91	23.00
		100	0	21.66	21.52	21.26	22.50
	DFT-s-OFDM QPSK	1	1	21.19	21.62	21.54	23.00
		1	104	21.11	21.12	21.20	23.00
		50	25	22.25	22.21	21.86	23.00
		100	0	21.04	20.92	20.75	22.00
	DFT-s-OFDM 16QAM	1	1	19.97	20.32	20.27	21.50
		1	104	19.67	19.70	19.70	21.50
		50	25	21.38	21.11	20.81	21.50
	DFT-s-OFDM 64QAM	1	1	18.54	18.90	18.81	20.00
		1	104	18.29	19.55	18.46	20.00
		50	25	19.86	19.64	19.32	20.00
	DFT-s-OFDM 256QAM	1	1	17.46	17.84	17.72	18.50
		1	104	17.02	16.86	16.99	18.50
		50	25	18.11	17.79	17.46	18.50
	CP-OFDM QPSK	1	1	19.74	20.07	20.04	21.00
	CP-OFDM 16QAM	1	1	19.52	19.87	19.79	20.50

	CP-OFDM 64QAM	1	1	18.14	18.57	18.44	19.50
	CP-OFDM 256QAM	1	1	14.79	15.22	15.12	16.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				638334/3575.01	641666/3624.99	645000/3675	
50MHz	DFT-s-OFDM BPSK	1	1	21.26	21.68	21.54	23.00
		1	131	21.07	21.13	21.10	23.00
		64	32	22.53	22.24	21.95	23.00
		128	0	21.69	21.57	21.30	22.50
	DFT-s-OFDM QPSK	1	1	21.21	21.66	21.59	23.00
		1	131	21.13	21.14	21.24	23.00
		64	32	22.25	22.22	21.88	23.00
		128	0	21.04	20.96	20.78	22.00
	DFT-s-OFDM 16QAM	1	1	19.97	20.34	20.30	21.50
		1	131	19.70	19.72	19.74	21.50
		64	32	21.40	21.15	20.84	21.50
	DFT-s-OFDM 64QAM	1	1	18.57	18.95	18.85	20.00
		1	131	18.32	19.60	18.50	20.00
		64	32	19.88	19.68	19.37	20.00
	DFT-s-OFDM 256QAM	1	1	17.49	17.84	17.75	18.50
		1	131	17.05	16.84	17.02	18.50
		64	32	18.10	17.81	17.50	18.50
	CP-OFDM QPSK	1	1	19.76	20.11	20.03	21.00
	CP-OFDM 16QAM	1	1	19.55	19.92	19.83	20.50
	CP-OFDM 64QAM	1	1	18.17	18.62	18.48	19.50
	CP-OFDM 256QAM	1	1	14.81	15.26	15.17	16.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				638668/3580.02	641666/3624.99	644666/3669.99	
60MHz	DFT-s-OFDM BPSK	1	1	21.18	21.57	21.44	23.00
		1	160	21.03	21.05	21.03	23.00
		81	40	22.44	22.12	21.83	23.00
		162	0	21.61	21.43	21.19	22.50
	DFT-s-OFDM QPSK	1	1	21.15	21.54	21.46	23.00
		1	160	21.05	21.06	21.13	23.00
		81	40	22.24	22.13	21.79	23.00
		162	0	21.03	20.85	20.67	22.00
	DFT-s-OFDM 16QAM	1	1	19.96	20.29	20.21	21.50
		1	160	19.62	19.63	19.64	21.50

		81	40	21.33	21.06	20.76	21.50
	DFT-s-OFDM 64QAM	1	1	18.47	18.82	18.73	20.00
		1	160	18.24	19.46	18.39	20.00
		81	40	19.82	19.56	19.24	20.00
	DFT-s-OFDM 256QAM	1	1	17.38	17.77	17.64	18.50
		1	160	16.96	16.83	16.93	18.50
		81	40	18.06	17.72	17.40	18.50
	CP-OFDM QPSK	1	1	19.69	20.02	19.99	21.00
	CP-OFDM 16QAM	1	1	19.45	19.79	19.71	20.50
	CP-OFDM 64QAM	1	1	18.09	18.48	18.37	19.50
	CP-OFDM 256QAM	1	1	14.75	15.14	15.04	16.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				639000/3585	641666/3624.99	644332/3664.98	
70MHz	DFT-s-OFDM BPSK	1	1	21.20	21.58	21.47	23.00
		1	187	21.06	21.10	21.07	23.00
		92	45	22.46	22.16	21.86	23.00
		180	0	21.64	21.48	21.23	22.50
	DFT-s-OFDM QPSK	1	1	21.18	21.59	21.50	23.00
		1	187	21.07	21.10	21.18	23.00
		92	45	22.28	22.15	21.83	23.00
		180	0	21.07	20.88	20.69	22.00
	DFT-s-OFDM 16QAM	1	1	20.00	20.33	20.24	21.50
		1	187	19.65	19.65	19.67	21.50
		92	46	21.36	21.11	20.80	21.50
	DFT-s-OFDM 64QAM	1	1	18.49	18.86	18.76	20.00
		1	187	18.27	19.51	18.43	20.00
		92	46	19.85	19.61	19.28	20.00
	DFT-s-OFDM 256QAM	1	1	17.40	17.76	17.66	18.50
		1	187	16.99	16.83	16.96	18.50
		92	46	18.05	17.74	17.43	18.50
	CP-OFDM QPSK	1	1	19.72	20.07	19.99	21.00
	CP-OFDM 16QAM	1	1	19.47	19.83	19.74	20.50
	CP-OFDM 64QAM	1	1	18.12	18.53	18.41	19.50
	CP-OFDM 256QAM	1	1	14.78	15.19	15.08	16.50
Bandwidth	Modulation	RB	offset	Channel/Frequency(MHz)			Tune-up

		allocation		639334/3590.01	641666/3624.99	644000/3660	
80MHz	DFT-s-OFDM BPSK	1	1	21.29	21.72	21.57	23.00
		1	215	21.08	21.17	21.12	23.00
		108	54	22.55	22.25	21.98	23.00
		216	0	21.72	21.62	21.34	22.50
	DFT-s-OFDM QPSK	1	1	21.23	21.70	21.62	23.00
		1	215	21.16	21.19	21.28	23.00
		108	54	22.28	22.27	21.92	23.00
		216	0	21.07	21.00	20.83	22.00
	DFT-s-OFDM 16QAM	1	1	20.00	20.36	20.34	21.50
		1	215	19.73	19.75	19.76	21.50
		108	54	21.43	21.19	20.87	21.50
	DFT-s-OFDM 64QAM	1	1	18.60	18.97	18.88	20.00
		1	215	18.35	19.65	18.54	20.00
		108	54	19.90	19.72	19.40	20.00
	DFT-s-OFDM 256QAM	1	1	17.51	17.88	17.80	18.50
		1	215	17.09	16.86	17.06	18.50
		108	54	18.16	17.87	17.56	18.50
	CP-OFDM QPSK	1	1	19.81	20.19	20.10	21.00
	CP-OFDM 16QAM	1	1	19.59	19.96	19.89	20.50
	CP-OFDM 64QAM	1	1	18.20	18.67	18.52	19.50
	CP-OFDM 256QAM	1	1	14.83	15.30	15.20	16.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				639668/3595.02	641666/3624.99	643666/3654.99	
90MHz	DFT-s-OFDM BPSK	1	1	21.19	21.54	21.45	23.00
		1	243	21.04	21.09	21.04	23.00
		120	60	22.43	22.11	21.82	23.00
		243	0	21.62	21.44	21.20	22.50
	DFT-s-OFDM QPSK	1	1	21.15	21.54	21.46	23.00
		1	243	21.04	21.07	21.14	23.00
		120	60	22.26	22.11	21.78	23.00
		243	0	21.05	20.86	20.67	22.00
	DFT-s-OFDM 16QAM	1	1	19.98	20.30	20.22	21.50
		1	243	19.63	19.61	19.64	21.50
		120	60	21.33	21.09	20.77	21.50
	DFT-s-OFDM 64QAM	1	1	18.46	18.81	18.72	20.00
		1	243	18.25	19.47	18.40	20.00
		120	60	19.82	19.56	19.24	20.00
	DFT-s-OFDM	1	1	17.35	17.74	17.64	18.50

	256QAM	1	243	16.97	16.80	16.94	18.50
		120	60	18.06	17.73	17.44	18.50
	CP-OFDM QPSK	1	1	19.71	20.09	20.00	21.00
	CP-OFDM 16QAM	1	1	19.45	19.80	19.73	20.50
	CP-OFDM 64QAM	1	1	18.10	18.49	18.38	19.50
	CP-OFDM 256QAM	1	1	14.75	15.14	15.04	16.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				640000/3600	641666/3624.99	643332/3649.98	
100MHz	DFT-s-OFDM BPSK	1	1	21.16	21.50	21.42	23.00
		1	271	21.03	21.05	21.02	23.00
		135	67	22.41	22.10	21.79	23.00
		270	0	21.59	21.39	21.16	22.50
	DFT-s-OFDM QPSK	1	1	**21.13**	**21.50**	**21.43**	23.00
		1	271	21.01	21.02	21.10	23.00
		135	67	**22.23**	22.06	21.74	23.00
		270	0	**21.02**	20.82	20.62	22.00
	DFT-s-OFDM 16QAM	1	1	19.95	20.28	20.18	21.50
		1	271	19.60	19.58	19.62	21.50
		135	67	21.30	21.05	20.74	21.50
	DFT-s-OFDM 64QAM	1	1	18.43	18.79	18.69	20.00
		1	271	18.22	19.42	18.36	20.00
		135	67	19.80	19.52	19.21	20.00
	DFT-s-OFDM 256QAM	1	1	17.33	17.70	17.59	18.50
		1	271	16.93	16.78	16.90	18.50
		135	67	18.00	17.67	17.38	18.50
	CP-OFDM QPSK	1	1	19.66	20.01	19.93	21.00
	CP-OFDM 16QAM	1	1	19.41	19.76	19.67	20.50
	CP-OFDM 64QAM	1	1	18.07	18.44	18.34	19.50
	CP-OFDM 256QAM	1	1	14.73	15.10	15.01	16.50

NR n48(SA)							
Receiver on-Main Ant2				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				637000/3555	641666/3624.99	646332/3694.98	
10MHz	DFT-s-OFDM	1	1	16.59	17.03	17.03	18.00

	BPSK	1	22	16.07	16.17	16.36	18.00
		12	6	17.64	17.24	16.75	18.00
		24	0	17.25	17.12	16.80	18.00
	DFT-s-OFDM QPSK	1	1	16.52	17.00	17.06	18.00
		1	22	16.25	16.19	16.42	18.00
		12	6	17.52	17.28	16.75	18.00
		24	0	17.15	17.06	16.81	18.00
	DFT-s-OFDM 16QAM	1	1	16.73	16.67	16.78	18.00
		1	22	16.23	16.22	16.20	18.00
		12	6	17.36	17.24	17.28	18.00
	DFT-s-OFDM 64QAM	1	1	16.87	16.80	16.82	18.00
		1	22	16.27	16.26	16.24	18.00
		12	6	17.29	17.28	17.31	18.00
	DFT-s-OFDM 256QAM	1	1	17.49	17.38	17.45	18.00
		1	22	16.50	16.27	16.42	18.00
		12	6	17.38	17.31	17.34	18.00
	CP-OFDM QPSK	1	1	17.13	17.05	17.09	18.00
	CP-OFDM 16QAM	1	1	17.37	17.33	17.36	18.00
	CP-OFDM 64QAM	1	1	17.19	17.18	17.16	18.00
	CP-OFDM 256QAM	1	1	16.36	16.35	16.38	16.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				637168/3557.52	641666/3624.99	646166/3692.49	
15MHz	DFT-s-OFDM BPSK	1	1	16.50	16.89	16.93	18.00
		1	36	16.05	16.10	16.31	18.00
		18	9	17.55	17.15	16.63	18.00
		36	0	17.17	16.98	16.69	18.00
	DFT-s-OFDM QPSK	1	1	16.47	16.89	16.94	18.00
		1	36	16.16	16.10	16.32	18.00
		18	9	17.52	17.16	16.66	18.00
		36	0	17.15	16.94	16.67	18.00
	DFT-s-OFDM 16QAM	1	1	16.73	16.64	16.68	18.00
		1	36	16.15	16.12	16.11	18.00
		18	9	17.29	17.16	17.21	18.00
	DFT-s-OFDM 64QAM	1	1	16.76	16.69	16.70	18.00
		1	36	16.19	16.12	16.13	18.00
		18	9	17.24	17.17	17.19	18.00
	DFT-s-OFDM 256QAM	1	1	17.38	17.26	17.31	18.00
		1	36	16.40	16.24	16.32	18.00
		18	9	17.27	17.18	17.21	18.00

	CP-OFDM QPSK	1	1	17.04	16.93	16.98	18.00
	CP-OFDM 16QAM	1	1	17.25	17.20	17.21	18.00
	CP-OFDM 64QAM	1	1	17.11	17.04	17.05	18.00
	CP-OFDM 256QAM	1	1	16.31	16.24	16.26	16.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				637334/3560.01	641666/3624.99	646000/3690	
20MHz	DFT-s-OFDM BPSK	1	1	16.56	16.99	17.00	18.00
		1	49	16.06	16.13	16.34	18.00
		25	12	17.62	17.23	16.72	18.00
		50	0	17.22	17.07	16.76	18.00
	DFT-s-OFDM QPSK	1	1	16.50	16.96	17.03	18.00
		1	49	16.22	16.14	16.38	18.00
		25	12	17.49	17.23	16.71	18.00
		50	0	17.12	17.02	16.76	18.00
	DFT-s-OFDM 16QAM	1	1	16.70	16.65	16.74	18.00
		1	49	16.20	16.19	16.18	18.00
		25	12	17.33	17.20	17.25	18.00
	DFT-s-OFDM 64QAM	1	1	16.84	16.78	16.79	18.00
		1	49	16.24	16.21	16.20	18.00
		25	12	17.27	17.24	17.28	18.00
	DFT-s-OFDM 256QAM	1	1	17.47	17.34	17.40	18.00
		1	49	16.46	16.25	16.38	18.00
		25	12	17.32	17.25	17.28	18.00
	CP-OFDM QPSK	1	1	17.08	16.97	17.02	18.00
	CP-OFDM 16QAM	1	1	17.33	17.29	17.30	18.00
	CP-OFDM 64QAM	1	1	17.16	17.13	17.12	18.00
	CP-OFDM 256QAM	1	1	16.34	16.31	16.35	16.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				638000/3570	641666/3624.99	645332/3679.98	
40MHz	DFT-s-OFDM BPSK	1	1	16.48	16.88	16.90	18.00
		1	104	16.02	16.05	16.27	18.00
		50	25	17.53	17.11	16.60	18.00
		100	0	17.14	16.93	16.65	18.00
	DFT-s-OFDM QPSK	1	1	16.44	16.84	16.90	18.00
		1	104	16.14	16.06	16.27	18.00

		50	25	17.48	17.14	16.62	18.00
		100	0	17.11	16.91	16.65	18.00
	DFT-s-OFDM 16QAM	1	1	16.69	16.60	16.65	18.00
		1	104	16.12	16.10	16.08	18.00
		50	25	17.26	17.11	17.17	18.00
	DFT-s-OFDM 64QAM	1	1	16.74	16.65	16.67	18.00
		1	104	16.16	16.07	16.09	18.00
		50	25	17.21	17.12	17.15	18.00
	DFT-s-OFDM 256QAM	1	1	17.36	17.27	17.29	18.00
		1	104	16.37	16.24	16.29	18.00
		50	25	17.28	17.16	17.18	18.00
	CP-OFDM QPSK	1	1	17.01	16.88	16.98	18.00
	CP-OFDM 16QAM	1	1	17.23	17.16	17.18	18.00
	CP-OFDM 64QAM	1	1	17.08	16.99	17.01	18.00
	CP-OFDM 256QAM	1	1	16.28	16.19	16.22	16.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				638334/3575.01	641666/3624.99	645000/3675	
50MHz	DFT-s-OFDM BPSK	1	1	16.53	16.97	16.96	18.00
		1	131	16.04	16.09	16.31	18.00
		64	32	17.59	17.18	16.68	18.00
		128	0	17.19	17.02	16.72	18.00
	DFT-s-OFDM QPSK	1	1	16.48	16.92	16.98	18.00
		1	131	16.20	16.12	16.34	18.00
		64	32	17.49	17.22	16.69	18.00
		128	0	17.12	16.98	16.73	18.00
	DFT-s-OFDM 16QAM	1	1	16.70	16.63	16.71	18.00
		1	131	16.17	16.17	16.14	18.00
		64	32	17.31	17.16	17.22	18.00
	DFT-s-OFDM 64QAM	1	1	16.81	16.73	16.75	18.00
		1	131	16.21	16.16	16.16	18.00
		64	32	17.25	17.20	17.23	18.00
	DFT-s-OFDM 256QAM	1	1	17.44	17.34	17.37	18.00
		1	131	16.43	16.27	16.35	18.00
		64	32	17.33	17.23	17.24	18.00
	CP-OFDM QPSK	1	1	17.06	16.93	17.03	18.00
	CP-OFDM 16QAM	1	1	17.30	17.24	17.26	18.00
	CP-OFDM	1	1	17.13	17.08	17.08	18.00

	64QAM						
	CP-OFDM 256QAM	1	1	16.32	16.27	16.30	16.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				638668/3580.02	641666/3624.99	644666/3669.99	
60MHz	DFT-s-OFDM BPSK	1	1	16.51	16.90	16.94	18.00
		1	160	16.04	16.09	16.30	18.00
		81	40	17.56	17.16	16.64	18.00
		162	0	17.17	16.98	16.69	18.00
	DFT-s-OFDM QPSK	1	1	16.46	16.88	16.95	18.00
		1	160	16.16	16.08	16.31	18.00
		81	40	17.48	17.15	16.64	18.00
		162	0	17.11	16.95	16.68	18.00
	DFT-s-OFDM 16QAM	1	1	16.69	16.62	16.68	18.00
		1	160	16.15	16.12	16.12	18.00
		81	40	17.28	17.15	17.20	18.00
	DFT-s-OFDM 64QAM	1	1	16.77	16.70	16.71	18.00
		1	160	16.19	16.12	16.13	18.00
		81	40	17.23	17.16	17.20	18.00
	DFT-s-OFDM 256QAM	1	1	17.39	17.27	17.32	18.00
		1	160	16.40	16.22	16.32	18.00
		81	40	17.27	17.18	17.22	18.00
	CP-OFDM QPSK	1	1	17.03	16.92	16.97	18.00
	CP-OFDM 16QAM	1	1	17.26	17.21	17.22	18.00
	CP-OFDM 64QAM	1	1	17.11	17.04	17.05	18.00
	CP-OFDM 256QAM	1	1	16.30	16.23	16.27	16.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				639000/3585	641666/3624.99	644332/3664.98	
70MHz	DFT-s-OFDM BPSK	1	1	16.49	16.85	16.91	18.00
		1	187	16.03	16.09	16.28	18.00
		92	45	17.52	17.10	16.59	18.00
		180	0	17.15	16.94	16.66	18.00
	DFT-s-OFDM QPSK	1	1	16.44	16.84	16.90	18.00
		1	187	16.13	16.07	16.28	18.00
		92	45	17.50	17.12	16.61	18.00
		180	0	17.13	16.92	16.65	18.00
	DFT-s-OFDM 16QAM	1	1	16.71	16.61	16.66	18.00
		1	187	16.13	16.08	16.08	18.00
		92	46	17.26	17.14	17.18	18.00

	DFT-s-OFDM 64QAM	1	1	16.73	16.64	16.66	18.00
		1	187	16.17	16.08	16.10	18.00
		92	46	17.21	17.12	17.15	18.00
	DFT-s-OFDM 256QAM	1	1	17.33	17.24	17.29	18.00
		1	187	16.38	16.21	16.30	18.00
		92	46	17.28	17.17	17.22	18.00
	CP-OFDM QPSK	1	1	17.03	16.95	16.99	18.00
	CP-OFDM 16QAM	1	1	17.23	17.17	17.20	18.00
	CP-OFDM 64QAM	1	1	17.09	17.00	17.02	18.00
	CP-OFDM 256QAM	1	1	16.28	16.19	16.22	16.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				639334/3590.01	641666/3624.99	644000/3660	
80MHz	DFT-s-OFDM BPSK	1	1	16.55	16.98	16.99	18.00
		1	215	16.07	16.14	16.35	18.00
		108	54	17.61	17.22	16.71	18.00
		216	0	17.22	17.07	16.76	18.00
	DFT-s-OFDM QPSK	1	1	16.51	16.97	17.02	18.00
		1	215	16.22	16.16	16.39	18.00
		108	54	17.53	17.24	16.73	18.00
		216	0	17.16	17.01	16.75	18.00
	DFT-s-OFDM 16QAM	1	1	16.74	16.67	16.74	18.00
		1	215	16.20	16.19	16.17	18.00
		108	54	17.34	17.21	17.26	18.00
	DFT-s-OFDM 64QAM	1	1	16.83	16.77	16.78	18.00
		1	215	16.24	16.21	16.20	18.00
		108	54	17.28	17.25	17.27	18.00
	DFT-s-OFDM 256QAM	1	1	17.46	17.33	17.39	18.00
		1	215	16.46	16.27	16.38	18.00
		108	54	17.32	17.25	17.27	18.00
	CP-OFDM QPSK	1	1	17.09	16.98	17.03	18.00
	CP-OFDM 16QAM	1	1	17.32	17.28	17.29	18.00
	CP-OFDM 64QAM	1	1	17.16	17.13	17.12	18.00
	CP-OFDM 256QAM	1	1	16.35	16.32	16.34	16.50

Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				639668/3595.02	641666/3624.99	643666/3654.99	
90MHz	DFT-s-OFDM BPSK	1	1	16.54	16.94	16.97	18.00
		1	243	16.05	16.13	16.32	18.00
		120	60	17.58	17.17	16.67	18.00
		243	0	17.20	17.03	16.73	18.00
	DFT-s-OFDM QPSK	1	1	16.48	16.92	16.98	18.00
		1	243	16.19	16.13	16.35	18.00
		120	60	17.51	17.20	16.68	18.00
		243	0	17.14	16.99	16.73	18.00
	DFT-s-OFDM 16QAM	1	1	16.72	16.64	16.72	18.00
		1	243	16.18	16.15	16.14	18.00
		120	60	17.31	17.19	17.23	18.00
	DFT-s-OFDM 64QAM	1	1	16.80	16.72	16.74	18.00
		1	243	16.22	16.17	16.17	18.00
		120	60	17.25	17.20	17.23	18.00
	DFT-s-OFDM 256QAM	1	1	17.41	17.31	17.37	18.00
		1	243	16.44	16.24	16.36	18.00
		120	60	17.33	17.24	17.28	18.00
	CP-OFDM QPSK	1	1	17.08	17.00	17.04	18.00
	CP-OFDM 16QAM	1	1	17.30	17.25	17.28	18.00
	CP-OFDM 64QAM	1	1	17.14	17.09	17.09	18.00
	CP-OFDM 256QAM	1	1	16.32	16.27	16.30	16.50
Bandwidth	**Modulation**	**RB allocation**	**offset**	**Channel/Frequency(MHz)**			**Tune-up**
				640000/3600	641666/3624.99	643332/3649.98	
100MHz	DFT-s-OFDM BPSK	1	1	16.46	16.81	16.88	18.00
		1	271	16.02	16.05	16.26	18.00
		135	67	17.50	17.09	16.56	18.00
		270	0	17.12	16.89	16.62	18.00
	DFT-s-OFDM QPSK	1	1	**16.42**	**16.80**	**16.87**	18.00
		1	271	16.10	16.02	16.24	18.00
		135	67	**17.47**	17.07	16.57	18.00
		270	0	**17.10**	16.88	16.60	18.00
	DFT-s-OFDM 16QAM	1	1	16.68	16.59	16.62	18.00
		1	271	16.10	16.05	16.06	18.00
		135	67	17.23	17.10	17.15	18.00
	DFT-s-OFDM 64QAM	1	1	16.70	16.62	16.63	18.00
		1	271	16.14	16.03	16.06	18.00
		135	67	17.19	17.08	17.12	18.00

	DFT-s-OFDM 256QAM	1	1	17.31	17.20	17.24	18.00
		1	271	16.34	16.19	16.26	18.00
		135	67	17.22	17.11	17.16	18.00
	CP-OFDM QPSK	1	1	16.98	16.87	16.92	18.00
	CP-OFDM 16QAM	1	1	17.19	17.13	17.14	18.00
	CP-OFDM 64QAM	1	1	17.06	16.95	16.98	18.00
	CP-OFDM 256QAM	1	1	16.26	16.15	16.19	16.50

NR n48(SA)							
Receiver off-Main Ant2				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				637000/3555	641666/3624.99	646332/3694.98	
10MHz	DFT-s-OFDM BPSK	1	1	17.55	17.97	18.01	19.00
		1	22	17.05	17.14	17.36	19.00
		12	6	18.63	18.20	17.73	19.00
		24	0	18.25	18.05	17.75	19.00
	DFT-s-OFDM QPSK	1	1	17.52	17.94	17.98	19.00
		1	22	17.12	17.16	17.37	19.00
		12	6	18.56	18.22	17.69	19.00
		24	0	18.19	18.03	17.76	19.00
	DFT-s-OFDM 16QAM	1	1	17.66	17.62	17.84	18.50
		1	22	17.07	17.07	17.13	18.50
		12	6	18.26	18.21	18.36	18.50
	DFT-s-OFDM 64QAM	1	1	17.78	17.73	17.92	18.50
		1	22	16.95	16.97	17.15	18.50
		12	6	18.22	18.22	18.37	19.00
	DFT-s-OFDM 256QAM	1	1	18.34	18.34	18.33	18.50
		1	22	17.32	17.26	17.44	18.50
		12	6	18.23	18.24	18.31	18.50
	CP-OFDM QPSK	1	1	18.02	18.00	18.13	19.00
	CP-OFDM 16QAM	1	1	18.29	18.25	18.40	19.00
	CP-OFDM 64QAM	1	1	18.10	18.09	18.24	19.00
	CP-OFDM 256QAM	1	1	16.26	16.27	16.44	16.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				637168/3557.52	641666/3624.99	646166/3692.49	

15MHz	DFT-s-OFDM BPSK	1	1	17.52	17.93	17.98	19.00
		1	36	17.04	17.10	17.34	19.00
		18	9	18.61	18.19	17.70	19.00
		36	0	18.22	18.00	17.71	19.00
	DFT-s-OFDM QPSK	1	1	17.50	17.90	17.95	19.00
		1	36	17.09	17.11	17.33	19.00
		18	9	18.53	18.17	17.65	19.00
		36	0	18.16	17.99	17.71	19.00
	DFT-s-OFDM 16QAM	1	1	17.63	17.60	17.80	18.50
		1	36	17.04	17.04	17.11	18.50
		18	9	18.23	18.17	18.33	18.50
	DFT-s-OFDM 64QAM	1	1	17.75	17.71	17.89	18.50
		1	36	16.92	16.92	17.11	18.50
		18	9	18.20	18.18	18.34	19.00
	DFT-s-OFDM 256QAM	1	1	18.32	18.30	18.44	18.50
		1	36	17.28	17.24	17.40	18.50
		18	9	18.17	18.18	18.25	18.50
	CP-OFDM QPSK	1	1	17.97	17.92	18.06	19.00
	CP-OFDM 16QAM	1	1	18.25	18.21	18.34	19.00
	CP-OFDM 64QAM	1	1	18.07	18.04	18.20	19.00
	CP-OFDM 256QAM	1	1	16.24	16.23	16.41	16.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				637334/3560.01	641666/3624.99	646000/3690	
20MHz	DFT-s-OFDM BPSK	1	1	17.56	18.01	18.03	19.00
		1	49	17.07	17.15	17.39	19.00
		25	12	18.66	18.25	17.77	19.00
		50	0	18.27	18.09	17.78	19.00
	DFT-s-OFDM QPSK	1	1	17.55	17.99	18.02	19.00
		1	49	17.15	17.19	17.41	19.00
		25	12	18.58	18.26	17.74	19.00
		50	0	18.21	18.05	17.78	19.00
	DFT-s-OFDM 16QAM	1	1	17.68	17.65	17.86	18.50
		1	49	17.09	17.11	17.16	18.50
		25	12	18.29	18.23	18.39	18.50
	DFT-s-OFDM 64QAM	1	1	17.81	17.78	17.96	18.50
		1	49	16.97	17.01	17.18	18.50
		25	12	18.25	18.27	18.41	19.00
	DFT-s-OFDM 256QAM	1	1	18.39	18.36	18.42	18.50
		1	49	17.34	17.29	17.46	18.50

		25	12	18.22	18.25	18.30	18.50
	CP-OFDM QPSK	1	1	18.03	17.98	18.12	19.00
	CP-OFDM 16QAM	1	1	18.31	18.28	18.41	19.00
	CP-OFDM 64QAM	1	1	18.12	18.13	18.27	19.00
	CP-OFDM 256QAM	1	1	16.29	16.32	16.38	16.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				638000/3570	641666/3624.99	645332/3679.98	
40MHz	DFT-s-OFDM BPSK	1	1	17.49	17.91	17.94	19.00
		1	104	17.02	17.06	17.31	19.00
		50	25	18.58	18.14	17.66	19.00
		100	0	18.19	17.95	17.67	19.00
	DFT-s-OFDM QPSK	1	1	17.48	17.86	17.90	19.00
		1	104	17.07	17.09	17.29	19.00
		50	25	18.53	18.16	17.63	19.00
		100	0	18.16	17.95	17.68	19.00
	DFT-s-OFDM 16QAM	1	1	17.63	17.58	17.77	18.50
		1	104	17.01	17.02	17.07	18.50
		50	25	18.21	18.13	18.30	18.50
	DFT-s-OFDM 64QAM	1	1	17.72	17.66	17.85	18.50
		1	104	16.89	16.87	17.07	18.50
		50	25	18.18	18.14	18.29	19.00
	DFT-s-OFDM 256QAM	1	1	18.29	18.30	18.41	18.50
		1	104	17.25	17.26	17.37	18.50
		50	25	18.18	18.16	18.21	18.50
	CP-OFDM QPSK	1	1	17.95	17.88	18.07	19.00
	CP-OFDM 16QAM	1	1	18.22	18.16	18.30	19.00
	CP-OFDM 64QAM	1	1	18.04	17.99	18.16	19.00
	CP-OFDM 256QAM	1	1	16.22	16.19	16.36	16.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				638334/3575.01	641666/3624.99	645000/3675	
50MHz	DFT-s-OFDM BPSK	1	1	17.57	18.02	18.04	19.00
		1	131	17.06	17.14	17.38	19.00
		64	32	18.67	18.26	17.78	19.00
		128	0	18.27	18.09	17.78	19.00
	DFT-s-OFDM	1	1	17.54	17.98	18.03	19.00

	QPSK	1	131	17.15	17.17	17.40	19.00
		64	32	18.54	18.25	17.72	19.00
		128	0	18.17	18.06	17.79	19.00
	DFT-s-OFDM 16QAM	1	1	17.64	17.63	17.86	18.50
		1	131	17.09	17.11	17.17	18.50
		64	32	18.28	18.22	18.38	18.50
	DFT-s-OFDM 64QAM	1	1	17.82	17.79	17.97	18.50
		1	131	16.97	17.01	17.18	18.50
		64	32	18.24	18.26	18.42	19.00
	DFT-s-OFDM 256QAM	1	1	18.40	18.37	18.40	18.50
		1	131	17.34	17.27	17.46	18.50
		64	32	18.22	18.25	18.31	18.50
	CP-OFDM QPSK	1	1	18.02	17.97	18.11	19.00
	CP-OFDM 16QAM	1	1	18.32	18.29	18.42	19.00
	CP-OFDM 64QAM	1	1	18.12	18.13	18.27	19.00
	CP-OFDM 256QAM	1	1	16.28	16.31	16.41	16.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				638668/3580.02	641666/3624.99	644666/3669.99	
60MHz	DFT-s-OFDM BPSK	1	1	17.54	18.00	18.00	19.00
		1	160	17.04	17.10	17.35	19.00
		81	40	18.64	18.21	17.74	19.00
		162	0	18.24	18.04	17.74	19.00
	DFT-s-OFDM QPSK	1	1	17.52	17.94	17.98	19.00
		1	160	17.13	17.15	17.36	19.00
		81	40	18.54	18.24	17.70	19.00
		162	0	18.17	18.02	17.76	19.00
	DFT-s-OFDM 16QAM	1	1	17.64	17.61	17.83	18.50
		1	160	17.06	17.09	17.13	18.50
		81	40	18.26	18.18	18.35	18.50
	DFT-s-OFDM 64QAM	1	1	17.79	17.74	17.93	18.50
		1	160	16.94	16.96	17.14	18.50
		81	40	18.22	18.22	18.37	19.00
	DFT-s-OFDM 256QAM	1	1	18.37	18.37	18.40	18.50
		1	160	17.31	17.29	17.43	18.50
		81	40	18.23	18.23	18.27	18.50
	CP-OFDM QPSK	1	1	18.00	17.93	18.12	19.00
	CP-OFDM 16QAM	1	1	18.29	18.24	18.38	19.00

	CP-OFDM 64QAM	1	1	18.09	18.08	18.23	19.00
	CP-OFDM 256QAM	1	1	16.26	16.27	16.44	16.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				639000/3585	641666/3624.99	644332/3664.98	
70MHz	DFT-s-OFDM BPSK	1	1	17.51	17.92	17.97	19.00
		1	187	17.05	17.11	17.35	19.00
		92	45	18.60	18.18	17.69	19.00
		180	0	18.22	18.00	17.71	19.00
	DFT-s-OFDM QPSK	1	1	17.51	17.91	17.94	19.00
		1	187	17.09	17.13	17.34	19.00
		92	45	18.57	18.18	17.67	19.00
		180	0	18.20	17.98	17.70	19.00
	DFT-s-OFDM 16QAM	1	1	17.67	17.62	17.80	18.50
		1	187	17.04	17.04	17.10	18.50
		92	46	18.24	18.18	18.34	18.50
	DFT-s-OFDM 64QAM	1	1	17.74	17.70	17.88	18.50
		1	187	16.92	16.92	17.11	18.50
		92	46	18.21	18.19	18.33	19.00
	DFT-s-OFDM 256QAM	1	1	18.31	18.29	18.43	18.50
		1	187	17.28	17.26	17.40	18.50
		92	46	18.17	18.18	18.24	18.50
	CP-OFDM QPSK	1	1	17.98	17.93	18.07	19.00
	CP-OFDM 16QAM	1	1	18.24	18.20	18.33	19.00
	CP-OFDM 64QAM	1	1	18.07	18.04	18.20	19.00
	CP-OFDM 256QAM	1	1	16.25	16.24	16.40	16.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				639334/3590.01	641666/3624.99	644000/3660	
80MHz	DFT-s-OFDM BPSK	1	1	17.50	17.88	17.95	19.00
		1	215	17.03	17.10	17.32	19.00
		108	54	18.57	18.13	17.65	19.00
		216	0	18.20	17.96	17.68	19.00
	DFT-s-OFDM QPSK	1	1	17.48	17.86	17.90	19.00
		1	215	17.06	17.10	17.30	19.00
		108	54	18.55	18.14	17.62	19.00
		216	0	18.18	17.96	17.68	19.00
	DFT-s-OFDM 16QAM	1	1	17.65	17.59	17.78	18.50
		1	215	17.02	17.00	17.07	18.50

		108	54	18.21	18.16	18.31	18.50
	DFT-s-OFDM 64QAM	1	1	17.71	17.65	17.84	18.50
		1	215	16.90	16.88	17.08	18.50
		108	54	18.18	18.14	18.29	19.00
	DFT-s-OFDM 256QAM	1	1	18.26	18.27	18.41	18.50
		1	215	17.26	17.23	17.38	18.50
		108	54	18.18	18.17	18.25	18.50
	CP-OFDM QPSK	1	1	17.97	17.95	18.08	19.00
	CP-OFDM 16QAM	1	1	18.22	18.17	18.32	19.00
	CP-OFDM 64QAM	1	1	18.05	18.00	18.17	19.00
	CP-OFDM 256QAM	1	1	16.22	16.19	16.36	16.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				639668/3595.02	641666/3624.99	643666/3654.99	
90MHz	DFT-s-OFDM BPSK	1	1	17.60	18.06	18.07	19.00
		1	243	17.07	17.18	17.40	19.00
		120	60	18.69	18.27	17.81	19.00
		243	0	18.30	18.14	17.82	19.00
	DFT-s-OFDM QPSK	1	1	17.56	18.02	18.06	19.00
		1	243	17.18	17.22	17.44	19.00
		120	60	18.57	18.30	17.76	19.00
		243	0	18.20	18.10	17.84	19.00
	DFT-s-OFDM 16QAM	1	1	17.67	17.65	17.90	18.50
		1	243	17.12	17.14	17.19	18.50
		120	60	18.31	18.26	18.41	18.50
	DFT-s-OFDM 64QAM	1	1	17.85	17.81	18.00	18.50
		1	243	17.00	17.06	17.22	18.50
		120	60	18.26	18.30	18.45	19.00
	DFT-s-OFDM 256QAM	1	1	18.42	18.41	18.38	18.50
		1	243	17.38	17.29	17.50	18.50
		120	60	18.28	18.31	18.37	18.50
	CP-OFDM QPSK	1	1	18.07	18.05	18.18	19.00
	CP-OFDM 16QAM	1	1	18.36	18.33	18.48	19.00
	CP-OFDM 64QAM	1	1	18.15	18.18	18.31	19.00
	CP-OFDM 256QAM	1	1	16.30	16.35	16.35	16.50

Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				640000/3600	641666/3624.99	643332/3649.98	
100MHz	DFT-s-OFDM BPSK	1	1	17.47	17.84	17.92	19.00
		1	271	17.02	17.06	17.30	19.00
		135	67	18.55	18.12	17.62	19.00
		270	0	18.17	17.91	17.64	19.00
	DFT-s-OFDM QPSK	1	1	**17.46**	**17.82**	**17.87**	19.00
		1	271	17.03	17.05	17.26	19.00
		135	67	**18.52**	18.09	17.58	19.00
		270	0	**18.15**	17.92	17.63	19.00
	DFT-s-OFDM 16QAM	1	1	17.62	17.57	17.74	18.50
		1	271	16.99	16.97	17.05	18.50
		135	67	18.18	18.12	18.28	18.50
	DFT-s-OFDM 64QAM	1	1	17.68	17.63	17.81	18.50
		1	271	16.87	16.83	17.04	18.50
		135	67	18.16	18.10	18.26	19.00
	DFT-s-OFDM 256QAM	1	1	18.24	18.23	18.36	18.50
		1	271	17.22	17.21	17.34	18.50
		135	67	18.12	18.11	18.19	18.50
	CP-OFDM QPSK	1	1	17.92	17.87	18.01	19.00
	CP-OFDM 16QAM	1	1	18.18	18.13	18.26	19.00
	CP-OFDM 64QAM	1	1	18.02	17.95	18.13	19.00
	CP-OFDM 256QAM	1	1	16.20	16.15	16.33	16.50

NR n48(SA)							
Hotspot on-Main Ant2				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				637000/3555	641666/3624.99	646332/3694.98	
10MHz	DFT-s-OFDM BPSK	1	1	17.02	17.44	17.44	18.50
		1	22	16.57	16.62	16.81	18.50
		12	6	18.07	17.65	17.17	18.50
		24	0	17.69	17.48	17.23	18.50
	DFT-s-OFDM QPSK	1	1	16.98	17.40	17.43	18.50
		1	22	16.59	16.63	16.82	18.50
		12	6	18.03	17.69	17.17	18.50
		24	0	17.64	17.47	17.20	18.50
	DFT-s-OFDM 16QAM	1	1	17.18	17.12	17.28	18.20
		1	22	16.49	16.45	16.52	18.20
		12	6	17.71	17.65	17.77	18.20

	DFT-s-OFDM 64QAM	1	1	17.26	17.22	17.32	18.20
		1	22	16.68	16.64	16.54	18.20
		12	6	17.70	17.67	17.80	18.20
	DFT-s-OFDM 256QAM	1	1	17.87	17.78	17.88	18.20
		1	22	16.83	16.72	16.84	18.20
		12	6	17.72	17.68	17.74	18.20
	CP-OFDM QPSK	1	1	17.83	17.77	17.88	18.50
	CP-OFDM 16QAM	1	1	17.73	17.69	17.79	18.50
	CP-OFDM 64QAM	1	1	17.58	17.54	17.67	18.50
	CP-OFDM 256QAM	1	1	16.27	16.24	16.36	17.00
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				637168/3557.52	641666/3624.99	646166/3692.49	
15MHz	DFT-s-OFDM BPSK	1	1	17.05	17.48	17.47	18.50
		1	36	16.58	16.66	16.83	18.50
		18	9	18.09	17.66	17.20	18.50
		36	0	17.72	17.53	17.27	18.50
	DFT-s-OFDM QPSK	1	1	17.00	17.44	17.46	18.50
		1	36	16.62	16.68	16.86	18.50
		18	9	18.06	17.74	17.21	18.50
		36	0	17.67	17.51	17.25	18.50
	DFT-s-OFDM 16QAM	1	1	17.21	17.14	17.32	18.20
		1	36	16.52	16.48	16.54	18.20
		18	9	17.74	17.69	17.80	18.20
	DFT-s-OFDM 64QAM	1	1	17.29	17.24	17.35	18.20
		1	36	16.71	16.69	16.58	18.20
		18	9	17.72	17.71	17.83	18.20
	DFT-s-OFDM 256QAM	1	1	17.89	17.82	17.93	18.20
		1	36	16.87	16.74	16.88	18.20
		18	9	17.78	17.74	17.80	18.20
	CP-OFDM QPSK	1	1	17.88	17.85	17.95	18.50
	CP-OFDM 16QAM	1	1	17.77	17.73	17.85	18.50
	CP-OFDM 64QAM	1	1	17.61	17.59	17.71	18.50
	CP-OFDM 256QAM	1	1	16.29	16.28	16.39	17.00
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				637334/3560.01	641666/3624.99	646000/3690	

20MHz	DFT-s-OFDM BPSK	1	1	17.04	17.51	17.46	18.50
		1	49	16.57	16.62	16.82	18.50
		25	12	18.10	17.67	17.21	18.50
		50	0	17.71	17.52	17.26	18.50
	DFT-s-OFDM QPSK	1	1	17.00	17.44	17.46	18.50
		1	49	16.63	16.67	16.85	18.50
		25	12	18.04	17.76	17.22	18.50
		50	0	17.65	17.50	17.25	18.50
	DFT-s-OFDM 16QAM	1	1	17.19	17.13	17.31	18.20
		1	49	16.51	16.50	16.54	18.20
		25	12	17.74	17.66	17.79	18.20
	DFT-s-OFDM 64QAM	1	1	17.30	17.25	17.36	18.20
		1	49	16.70	16.68	16.57	18.20
		25	12	17.72	17.71	17.83	18.20
	DFT-s-OFDM 256QAM	1	1	17.92	17.85	17.93	18.20
		1	49	16.86	16.77	16.87	18.20
		25	12	17.78	17.73	17.76	18.20
	CP-OFDM QPSK	1	1	17.86	17.78	17.94	18.50
	CP-OFDM 16QAM	1	1	17.77	17.72	17.83	18.50
	CP-OFDM 64QAM	1	1	17.60	17.58	17.70	18.50
	CP-OFDM 256QAM	1	1	16.29	16.28	16.39	17.00
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				638000/3570	641666/3624.99	645332/3679.98	
40MHz	DFT-s-OFDM BPSK	1	1	16.99	17.42	17.40	18.50
		1	104	16.55	16.58	16.78	18.50
		50	25	18.04	17.60	17.13	18.50
		100	0	17.66	17.43	17.19	18.50
	DFT-s-OFDM QPSK	1	1	16.96	17.36	17.38	18.50
		1	104	16.57	16.61	16.78	18.50
		50	25	18.03	17.68	17.15	18.50
		100	0	17.64	17.43	17.17	18.50
	DFT-s-OFDM 16QAM	1	1	17.18	17.10	17.25	18.20
		1	104	16.46	16.43	16.48	18.20
		50	25	17.69	17.61	17.74	18.20
	DFT-s-OFDM 64QAM	1	1	17.23	17.17	17.28	18.20
		1	104	16.65	16.59	16.50	18.20
		50	25	17.68	17.63	17.75	18.20
	DFT-s-OFDM 256QAM	1	1	17.84	17.78	17.85	18.20
		1	104	16.80	16.74	16.81	18.20

		50	25	17.73	17.66	17.70	18.20
	CP-OFDM QPSK	1	1	17.81	17.73	17.89	18.50
	CP-OFDM 16QAM	1	1	17.70	17.64	17.75	18.50
	CP-OFDM 64QAM	1	1	17.55	17.49	17.63	18.50
	CP-OFDM 256QAM	1	1	16.25	16.20	16.31	17.00
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				638334/3575.01	641666/3624.99	645000/3675	
50MHz	DFT-s-OFDM BPSK	1	1	17.06	17.52	17.49	18.50
		1	131	16.60	16.67	16.86	18.50
		64	32	18.12	17.71	17.24	18.50
		128	0	17.74	17.57	17.30	18.50
	DFT-s-OFDM QPSK	1	1	17.03	17.49	17.50	18.50
		1	131	16.65	16.71	16.90	18.50
		64	32	18.08	17.78	17.26	18.50
		128	0	17.69	17.53	17.27	18.50
	DFT-s-OFDM 16QAM	1	1	17.23	17.17	17.34	18.20
		1	131	16.54	16.52	16.57	18.20
		64	32	17.77	17.71	17.83	18.20
	DFT-s-OFDM 64QAM	1	1	17.32	17.29	17.39	18.20
		1	131	16.73	16.73	16.61	18.20
		64	32	17.75	17.76	17.87	18.20
	DFT-s-OFDM 256QAM	1	1	17.94	17.84	17.95	18.20
		1	131	16.89	16.77	16.90	18.20
		64	32	17.77	17.75	17.79	18.20
	CP-OFDM QPSK	1	1	17.89	17.83	17.94	18.50
	CP-OFDM 16QAM	1	1	17.79	17.76	17.86	18.50
	CP-OFDM 64QAM	1	1	17.63	17.63	17.74	18.50
	CP-OFDM 256QAM	1	1	16.32	16.33	16.43	17.00
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				638668/3580.02	641666/3624.99	644666/3669.99	
60MHz	DFT-s-OFDM BPSK	1	1	17.01	17.43	17.43	18.50
		1	160	16.58	16.63	16.82	18.50
		81	40	18.06	17.64	17.16	18.50
		162	0	17.69	17.48	17.23	18.50
	DFT-s-OFDM	1	1	16.99	17.41	17.42	18.50

	QPSK	1	160	16.59	16.65	16.83	18.50
		81	40	18.07	17.70	17.19	18.50
		162	0	17.68	17.46	17.19	18.50
	DFT-s-OFDM 16QAM	1	1	17.22	17.14	17.28	18.20
		1	160	16.49	16.45	16.51	18.20
		81	40	17.72	17.66	17.78	18.20
	DFT-s-OFDM 64QAM	1	1	17.25	17.21	17.31	18.20
		1	160	16.68	16.64	16.54	18.20
		81	40	17.71	17.68	17.79	18.20
	DFT-s-OFDM 256QAM	1	1	17.86	17.77	17.87	18.20
		1	160	16.83	16.74	16.84	18.20
		81	40	17.72	17.68	17.73	18.20
	CP-OFDM QPSK	1	1	17.84	17.78	17.89	18.50
	CP-OFDM 16QAM	1	1	17.72	17.68	17.78	18.50
	CP-OFDM 64QAM	1	1	17.58	17.54	17.67	18.50
	CP-OFDM 256QAM	1	1	16.28	16.25	16.35	17.00
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				639000/3585	641666/3624.99	644332/3664.98	
70MHz	DFT-s-OFDM BPSK	1	1	17.10	17.57	17.53	18.50
		1	187	16.60	16.70	16.87	18.50
		92	45	18.15	17.73	17.28	18.50
		180	0	17.77	17.62	17.34	18.50
	DFT-s-OFDM QPSK	1	1	17.04	17.52	17.54	18.50
		1	187	16.68	16.74	16.93	18.50
		92	45	18.07	17.82	17.28	18.50
		180	0	17.68	17.58	17.33	18.50
	DFT-s-OFDM 16QAM	1	1	17.22	17.17	17.38	18.20
		1	187	16.57	16.55	16.60	18.20
		92	46	17.79	17.74	17.85	18.20
	DFT-s-OFDM 64QAM	1	1	17.36	17.32	17.43	18.20
		1	187	16.76	16.78	16.65	18.20
		92	46	17.76	17.79	17.91	18.20
	DFT-s-OFDM 256QAM	1	1	17.97	17.89	18.01	18.20
		1	187	16.93	16.77	16.94	18.20
		92	46	17.83	17.81	17.86	18.20
	CP-OFDM QPSK	1	1	17.93	17.90	18.00	18.50
	CP-OFDM 16QAM	1	1	17.84	17.81	17.93	18.50

	CP-OFDM 64QAM	1	1	17.66	17.68	17.78	18.50
	CP-OFDM 256QAM	1	1	16.33	16.36	16.47	17.00
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				639334/3590.01	641666/3624.99	644000/3660	
80MHz	DFT-s-OFDM BPSK	1	1	17.07	17.53	17.50	18.50
		1	215	16.59	16.66	16.85	18.50
		108	54	18.13	17.72	17.25	18.50
		216	0	17.74	17.57	17.30	18.50
	DFT-s-OFDM QPSK	1	1	17.02	17.48	17.51	18.50
		1	215	16.65	16.69	16.89	18.50
		108	54	18.04	17.77	17.24	18.50
		216	0	17.65	17.54	17.28	18.50
	DFT-s-OFDM 16QAM	1	1	17.19	17.15	17.34	18.20
		1	215	16.54	16.52	16.58	18.20
		108	54	17.76	17.70	17.82	18.20
	DFT-s-OFDM 64QAM	1	1	17.33	17.30	17.40	18.20
		1	215	16.73	16.73	16.61	18.20
		108	54	17.74	17.75	17.88	18.20
	DFT-s-OFDM 256QAM	1	1	17.95	17.85	17.96	18.20
		1	215	16.89	16.75	16.90	18.20
		108	54	17.77	17.75	17.80	18.20
	CP-OFDM QPSK	1	1	17.88	17.82	17.93	18.50
	CP-OFDM 16QAM	1	1	17.80	17.77	17.87	18.50
	CP-OFDM 64QAM	1	1	17.63	17.63	17.74	18.50
	CP-OFDM 256QAM	1	1	16.31	16.32	16.44	17.00
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				639668/3595.02	641666/3624.99	643666/3654.99	
90MHz	DFT-s-OFDM BPSK	1	1	17.00	17.39	17.41	18.50
		1	243	16.56	16.62	16.79	18.50
		120	60	18.03	17.59	17.12	18.50
		243	0	17.67	17.44	17.20	18.50
	DFT-s-OFDM QPSK	1	1	16.96	17.36	17.38	18.50
		1	243	16.56	16.62	16.79	18.50
		120	60	18.05	17.66	17.14	18.50
		243	0	17.66	17.44	17.17	18.50
	DFT-s-OFDM 16QAM	1	1	17.20	17.11	17.26	18.20
		1	243	16.47	16.41	16.48	18.20

		120	60	17.69	17.64	17.75	18.20
	DFT-s-OFDM 64QAM	1	1	17.22	17.16	17.27	18.20
		1	243	16.66	16.60	16.51	18.20
		120	60	17.68	17.63	17.75	18.20
	DFT-s-OFDM 256QAM	1	1	17.81	17.75	17.85	18.20
		1	243	16.81	16.71	16.82	18.20
		120	60	17.73	17.67	17.74	18.20
	CP-OFDM QPSK	1	1	17.83	17.80	17.90	18.50
	CP-OFDM 16QAM	1	1	17.70	17.65	17.77	18.50
	CP-OFDM 64QAM	1	1	17.56	17.50	17.64	18.50
	CP-OFDM 256QAM	1	1	16.25	16.20	16.31	17.00
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				640000/3600	641666/3624.99	643332/3649.98	
100MHz	DFT-s-OFDM BPSK	1	1	16.97	17.35	17.38	18.50
		1	271	16.55	16.58	16.77	18.50
		135	67	18.01	17.58	17.09	18.50
		270	0	17.64	17.39	17.16	18.50
	DFT-s-OFDM QPSK	1	1	**16.94**	**17.32**	**17.35**	18.50
		1	271	16.53	16.57	16.75	18.50
		135	67	**18.02**	17.61	17.10	18.50
		270	0	**17.63**	17.40	17.12	18.50
	DFT-s-OFDM 16QAM	1	1	17.17	17.09	17.22	18.20
		1	271	16.44	16.38	16.46	18.20
		135	67	17.66	17.60	17.72	18.20
	DFT-s-OFDM 64QAM	1	1	17.19	17.14	17.24	18.20
		1	271	16.63	16.55	16.47	18.20
		135	67	17.66	17.59	17.72	18.20
	DFT-s-OFDM 256QAM	1	1	17.79	17.71	17.80	18.20
		1	271	16.77	16.69	16.78	18.20
		135	67	17.67	17.61	17.68	18.20
	CP-OFDM QPSK	1	1	17.78	17.72	17.83	18.50
	CP-OFDM 16QAM	1	1	17.66	17.61	17.71	18.50
	CP-OFDM 64QAM	1	1	17.53	17.45	17.60	18.50
	CP-OFDM 256QAM	1	1	16.23	16.16	16.28	17.00

NR n66(SA)							
Normal power & Receiver off & Hotspot on-Main Ant2				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				342500/1712.5	349000/1745	355500/1777.5	
5MHz	DFT-s-OFDM BPSK	1	1	23.15	23.20	22.99	24.50
		1	23	22.84	22.89	23.02	24.50
		12	6	23.55	23.44	23.45	24.50
		25	0	23.12	23.08	22.94	24.00
	DFT-s-OFDM QPSK	1	1	23.12	23.10	23.01	24.50
		1	23	22.95	22.95	23.07	24.50
		12	6	23.58	23.66	23.59	24.50
		25	0	22.61	22.69	22.75	23.50
	DFT-s-OFDM 16QAM	1	1	21.39	21.33	21.30	22.50
		1	23	21.22	21.27	21.33	22.50
		12	6	21.66	21.52	21.51	22.50
	DFT-s-OFDM 64QAM	1	1	21.09	21.01	20.89	21.50
		1	23	20.80	20.89	20.94	21.50
		12	6	21.40	21.37	21.34	21.50
	DFT-s-OFDM 256QAM	1	1	19.02	18.90	18.82	20.00
		1	23	18.70	18.66	18.80	20.00
		12	6	19.03	18.96	18.86	20.00
	CP-OFDM QPSK	1	1	21.63	21.48	21.52	22.50
	CP-OFDM 16QAM	1	1	21.46	21.34	21.33	22.50
	CP-OFDM 64QAM	1	1	19.77	19.75	19.66	21.00
	CP-OFDM 256QAM	1	1	16.43	16.41	16.38	17.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				343000/1715	349000/1745	355000/1775	
10MHz	DFT-s-OFDM BPSK	1	1	23.13	23.13	22.97	24.50
		1	50	22.84	22.89	23.01	24.50
		25	12	23.52	23.42	23.41	24.50
		50	0	23.10	23.04	22.91	24.00
	DFT-s-OFDM QPSK	1	1	23.10	23.06	22.98	24.50
		1	50	22.91	22.91	23.04	24.50
		25	12	23.57	23.59	23.54	24.50
		50	0	22.60	22.66	22.70	23.50
	DFT-s-OFDM 16QAM	1	1	21.38	21.32	21.27	22.50
		1	50	21.20	21.22	21.31	22.50
		25	12	21.63	21.51	21.49	22.50

	DFT-s-OFDM 64QAM	1	1	21.05	20.98	20.85	21.50
		1	50	20.78	20.85	20.91	21.50
		25	12	21.38	21.33	21.31	21.50
	DFT-s-OFDM 256QAM	1	1	18.97	18.83	18.77	20.00
		1	50	18.67	18.61	18.77	20.00
		25	12	18.97	18.91	18.84	20.00
	CP-OFDM QPSK	1	1	21.60	21.47	21.46	22.50
	CP-OFDM 16QAM	1	1	21.42	21.31	21.29	22.50
	CP-OFDM 64QAM	1	1	19.75	19.71	19.63	21.00
	CP-OFDM 256QAM	1	1	16.41	16.37	16.35	17.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				343500/1717.5	349000/1745	354500/1772.5	
15MHz	DFT-s-OFDM BPSK	1	1	23.10	23.11	22.93	24.50
		1	77	22.82	22.85	22.98	24.50
		36	18	23.49	23.37	23.37	24.50
		75	0	23.07	22.99	22.87	24.00
	DFT-s-OFDM QPSK	1	1	23.08	23.02	22.93	24.50
		1	77	22.89	22.89	23.00	24.50
		36	18	23.57	23.58	23.52	24.50
		75	0	22.60	22.62	22.67	23.50
	DFT-s-OFDM 16QAM	1	1	21.38	21.30	21.24	22.50
		1	77	21.17	21.20	21.27	22.50
		36	18	21.61	21.47	21.46	22.50
	DFT-s-OFDM 64QAM	1	1	21.02	20.93	20.81	21.50
		1	77	20.75	20.80	20.87	21.50
		36	18	21.36	21.29	21.26	21.50
	DFT-s-OFDM 256QAM	1	1	18.94	18.83	18.74	20.00
		1	77	18.64	18.63	18.74	20.00
		36	18	18.98	18.89	18.80	20.00
	CP-OFDM QPSK	1	1	21.58	21.43	21.47	22.50
	CP-OFDM 16QAM	1	1	21.39	21.26	21.25	22.50
	CP-OFDM 64QAM	1	1	19.72	19.66	19.59	21.00
	CP-OFDM 256QAM	1	1	16.39	16.33	16.30	17.50

Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				344000/1720	349000/1745	354000/1770	
20MHz	DFT-s-OFDM BPSK	1	1	23.12	23.12	22.96	24.50
		1	104	22.85	22.90	23.02	24.50
		50	25	23.51	23.41	23.40	24.50
		100	0	23.10	23.04	22.91	24.00
	DFT-s-OFDM QPSK	1	1	23.11	23.07	22.97	24.50
		1	104	22.91	22.93	23.05	24.50
		50	25	23.61	23.60	23.56	24.50
		100	0	22.64	22.65	22.69	23.50
	DFT-s-OFDM 16QAM	1	1	21.42	21.34	21.27	22.50
		1	104	21.20	21.22	21.30	22.50
		50	25	21.64	21.52	21.50	22.50
	DFT-s-OFDM 64QAM	1	1	21.04	20.97	20.84	21.50
		1	104	20.78	20.85	20.91	21.50
		50	25	21.39	21.34	21.30	21.50
	DFT-s-OFDM 256QAM	1	1	18.96	18.82	18.76	20.00
		1	104	18.67	18.63	18.77	20.00
		50	25	18.97	18.91	18.83	20.00
	CP-OFDM QPSK	1	1	21.61	21.48	21.47	22.50
	CP-OFDM 16QAM	1	1	21.41	21.30	21.28	22.50
	CP-OFDM 64QAM	1	1	19.75	19.71	19.63	21.00
	CP-OFDM 256QAM	1	1	16.42	16.38	16.34	17.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				345000/1725	349000/1745	353000/1765	
30MHz	DFT-s-OFDM BPSK	1	1	23.11	23.08	22.94	24.50
		1	158	22.83	22.89	22.99	24.50
		80	40	23.48	23.36	23.36	24.50
		160	0	23.08	23.00	22.88	24.00
	DFT-s-OFDM QPSK	1	1	23.08	23.02	22.93	24.50
		1	158	22.88	22.90	23.01	24.50
		80	40	23.59	23.56	23.51	24.50
		160	0	22.62	22.63	22.67	23.50
	DFT-s-OFDM 16QAM	1	1	21.40	21.31	21.25	22.50
		1	158	21.18	21.18	21.27	22.50
		80	40	21.61	21.50	21.47	22.50
	DFT-s-OFDM 64QAM	1	1	21.01	20.92	20.80	21.50
		1	158	20.76	20.81	20.88	21.50
		80	40	21.36	21.29	21.26	21.50

	DFT-s-OFDM 256QAM	1	1	18.91	18.80	18.74	20.00
		1	158	18.65	18.60	18.75	20.00
		80	40	18.98	18.90	18.84	20.00
	CP-OFDM QPSK	1	1	21.60	21.50	21.48	22.50
	CP-OFDM 16QAM	1	1	21.39	21.27	21.27	22.50
	CP-OFDM 64QAM	1	1	19.73	19.67	19.60	21.00
	CP-OFDM 256QAM	1	1	16.39	16.33	16.30	17.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				346000/1730	349000/1745	352000/1760	
40MHz	DFT-s-OFDM BPSK	1	1	23.08	23.04	22.91	24.50
		1	214	22.82	22.85	22.97	24.50
		108	54	23.46	23.35	23.33	24.50
		216	0	23.05	22.95	22.84	24.00
	DFT-s-OFDM QPSK	1	1	**23.06**	**22.98**	22.90	24.50
		1	214	22.85	22.85	**22.97**	24.50
		108	54	**23.46**	23.44	23.40	24.50
		216	0	22.59	22.59	**22.62**	23.50
	DFT-s-OFDM 16QAM	1	1	21.37	21.29	21.21	22.50
		1	214	21.15	21.15	21.25	22.50
		108	54	21.58	21.46	21.44	22.50
	DFT-s-OFDM 64QAM	1	1	20.98	20.90	20.77	21.50
		1	214	20.73	20.76	20.84	21.50
		108	54	21.34	21.25	21.23	21.50
	DFT-s-OFDM 256QAM	1	1	18.89	18.76	18.69	20.00
		1	214	18.61	18.58	18.71	20.00
		108	54	18.92	18.84	18.78	20.00
	CP-OFDM QPSK	1	1	21.55	21.42	21.41	22.50
	CP-OFDM 16QAM	1	1	21.35	21.23	21.21	22.50
	CP-OFDM 64QAM	1	1	19.70	19.62	19.56	21.00
	CP-OFDM 256QAM	1	1	16.37	16.29	16.27	17.50

NR n66(SA)							
Receiver on-Main Ant2				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				342500/1712.5	349000/1745	355500/1777.5	
5MHz	DFT-s-OFDM BPSK	1	1	19.66	19.82	19.71	21.00
		1	23	19.78	19.61	19.82	21.00
		12	6	19.77	20.16	20.00	21.00
		25	0	19.83	20.04	20.13	21.00
	DFT-s-OFDM QPSK	1	1	19.87	19.82	19.86	21.00
		1	23	19.66	19.64	19.72	21.00
		12	6	19.95	20.20	20.05	21.00
		25	0	19.77	20.04	19.88	21.00
	DFT-s-OFDM 16QAM	1	1	19.73	19.56	19.72	21.00
		1	23	19.57	19.47	19.84	21.00
		12	6	19.79	20.20	20.03	21.00
	DFT-s-OFDM 64QAM	1	1	19.67	19.66	19.80	21.00
		1	23	19.80	19.52	19.62	21.00
		12	6	19.46	19.89	19.69	21.00
	DFT-s-OFDM 256QAM	1	1	19.30	18.65	19.04	20.00
		1	23	18.75	18.45	18.67	20.00
		12	6	18.83	18.70	18.75	20.00
	CP-OFDM QPSK	1	1	19.51	19.76	19.81	21.00
	CP-OFDM 16QAM	1	1	19.85	20.04	19.66	21.00
	CP-OFDM 64QAM	1	1	18.93	19.03	19.09	20.50
	CP-OFDM 256QAM	1	1	16.08	16.26	16.46	17.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				343000/1715	349000/1745	355000/1775	
10MHz	DFT-s-OFDM BPSK	1	1	19.63	19.80	19.67	21.00
		1	50	19.76	19.57	19.79	21.00
		25	12	19.74	20.11	19.96	21.00
		50	0	19.80	19.99	20.09	21.00
	DFT-s-OFDM QPSK	1	1	19.85	19.78	19.81	21.00
		1	50	19.64	19.62	19.68	21.00
		25	12	19.95	20.19	20.03	21.00
		50	0	19.77	20.00	19.85	21.00
	DFT-s-OFDM 16QAM	1	1	19.73	19.54	19.69	21.00
		1	50	19.54	19.45	19.80	21.00
		25	12	19.77	20.16	20.00	21.00
	DFT-s-OFDM	1	1	19.64	19.61	19.76	21.00

	64QAM	1	50	19.77	19.47	19.58	21.00
		25	12	19.44	19.85	19.64	21.00
	DFT-s-OFDM 256QAM	1	1	19.27	18.65	19.01	20.00
		1	50	18.72	18.47	18.64	20.00
		25	12	18.84	18.68	18.71	20.00
	CP-OFDM QPSK	1	1	19.49	19.72	19.82	21.00
	CP-OFDM 16QAM	1	1	19.82	19.99	19.62	21.00
	CP-OFDM 64QAM	1	1	18.90	18.98	19.05	20.50
	CP-OFDM 256QAM	1	1	16.06	16.22	16.41	17.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				343500/1717.5	349000/1745	354500/1772.5	
15MHz	DFT-s-OFDM BPSK	1	1	19.70	19.90	19.76	21.00
		1	77	19.81	19.66	19.87	21.00
		36	18	19.82	20.22	20.07	21.00
		75	0	19.88	20.13	20.20	21.00
	DFT-s-OFDM QPSK	1	1	19.92	19.91	19.93	21.00
		1	77	19.72	19.72	19.80	21.00
		36	18	20.00	20.29	20.14	21.00
		75	0	19.82	20.10	19.95	21.00
	DFT-s-OFDM 16QAM	1	1	19.78	19.61	19.78	21.00
		1	77	19.62	19.54	19.89	21.00
		36	18	19.85	20.26	20.09	21.00
	DFT-s-OFDM 64QAM	1	1	19.73	19.73	19.87	21.00
		1	77	19.85	19.61	19.69	21.00
		36	18	19.51	19.98	19.76	21.00
	DFT-s-OFDM 256QAM	1	1	19.37	18.71	19.11	20.00
		1	77	18.81	18.50	18.73	20.00
		36	18	18.88	18.77	18.80	20.00
	CP-OFDM QPSK	1	1	19.57	19.82	19.87	21.00
	CP-OFDM 16QAM	1	1	19.91	20.11	19.73	21.00
	CP-OFDM 64QAM	1	1	18.98	19.12	19.16	20.50
	CP-OFDM 256QAM	1	1	16.13	16.35	16.53	17.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				344000/1720	349000/1745	354000/1770	
20MHz	DFT-s-OFDM	1	1	19.65	19.81	19.70	21.00

	BPSK	1	104	19.79	19.62	19.83	21.00
		50	25	19.76	20.15	19.99	21.00
		100	0	19.83	20.04	20.13	21.00
	DFT-s-OFDM QPSK	1	1	19.88	19.83	19.85	21.00
		1	104	19.66	19.66	19.73	21.00
		50	25	19.99	20.21	20.07	21.00
		100	0	19.81	20.03	19.87	21.00
	DFT-s-OFDM 16QAM	1	1	19.77	19.58	19.72	21.00
		1	104	19.57	19.47	19.83	21.00
		50	25	19.80	20.21	20.04	21.00
	DFT-s-OFDM 64QAM	1	1	19.66	19.65	19.79	21.00
		1	104	19.80	19.52	19.62	21.00
		50	25	19.47	19.90	19.68	21.00
	DFT-s-OFDM 256QAM	1	1	19.29	18.64	19.03	20.00
		1	104	18.75	18.47	18.67	20.00
		50	25	18.83	18.70	18.74	20.00
	CP-OFDM QPSK	1	1	19.52	19.77	19.82	21.00
	CP-OFDM 16QAM	1	1	19.84	20.03	19.65	21.00
	CP-OFDM 64QAM	1	1	18.93	19.03	19.09	20.50
	CP-OFDM 256QAM	1	1	16.09	16.27	16.45	17.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				345000/1725	349000/1745	353000/1765	
30MHz	DFT-s-OFDM BPSK	1	1	19.69	19.86	19.74	21.00
		1	158	19.79	19.65	19.84	21.00
		80	40	19.79	20.17	20.03	21.00
		160	0	19.86	20.09	20.17	21.00
	DFT-s-OFDM QPSK	1	1	19.89	19.86	19.89	21.00
		1	158	19.69	19.69	19.76	21.00
		80	40	19.98	20.25	20.09	21.00
		160	0	19.80	20.08	19.93	21.00
	DFT-s-OFDM 16QAM	1	1	19.76	19.58	19.76	21.00
		1	158	19.60	19.50	19.86	21.00
		80	40	19.82	20.24	20.06	21.00
	DFT-s-OFDM 64QAM	1	1	19.70	19.68	19.83	21.00
		1	158	19.83	19.57	19.66	21.00
		80	40	19.48	19.93	19.72	21.00
	DFT-s-OFDM 256QAM	1	1	19.32	18.69	19.09	20.00
		1	158	18.79	18.47	18.71	20.00
		80	40	18.89	18.76	18.81	20.00

	CP-OFDM QPSK	1	1	19.56	19.84	19.88	21.00
	CP-OFDM 16QAM	1	1	19.89	20.08	19.72	21.00
	CP-OFDM 64QAM	1	1	18.96	19.08	19.13	20.50
	CP-OFDM 256QAM	1	1	16.10	16.30	16.49	17.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				346000/1730	349000/1745	352000/1760	
40MHz	DFT-s-OFDM BPSK	1	1	19.61	19.73	19.65	21.00
		1	214	19.76	19.57	19.78	21.00
		108	54	19.71	20.09	19.92	21.00
		216	0	19.78	19.95	20.06	21.00
	DFT-s-OFDM QPSK	1	1	**19.83**	**19.74**	**19.78**	21.00
		1	214	19.60	19.58	19.65	21.00
		108	54	19.94	**20.12**	19.98	21.00
		216	0	19.76	**19.97**	19.80	21.00
	DFT-s-OFDM 16QAM	1	1	19.72	19.53	19.66	21.00
		1	214	19.52	19.40	19.78	21.00
		108	54	19.74	20.15	19.98	21.00
	DFT-s-OFDM 64QAM	1	1	19.60	19.58	19.72	21.00
		1	214	19.75	19.43	19.55	21.00
		108	54	19.42	19.81	19.61	21.00
	DFT-s-OFDM 256QAM	1	1	19.22	18.58	18.96	20.00
		1	214	18.69	18.42	18.61	20.00
		108	54	18.78	18.63	18.69	20.00
	CP-OFDM QPSK	1	1	19.46	19.71	19.76	21.00
	CP-OFDM 16QAM	1	1	19.78	19.96	19.58	21.00
	CP-OFDM 64QAM	1	1	18.88	18.94	19.02	20.50
	CP-OFDM 256QAM	1	1	16.04	16.18	16.38	17.50

NR n66(NSA)							
Normal power & Receiver off & Hotspot on-Main Ant2				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				342500/1712.5	349000/1745	355500/1777.5	
5MHz	DFT-s-OFDM BPSK	1	1	23.15	23.20	22.99	24.50
		1	23	22.84	22.89	23.02	24.50

		12	6	23.55	23.44	23.45	24.50
		25	0	23.12	23.08	22.94	24.00
	DFT-s-OFDM QPSK	1	1	23.12	23.10	23.01	24.50
		1	23	22.95	22.95	23.07	24.50
		12	6	23.58	23.66	23.59	24.50
		25	0	22.61	22.69	22.75	23.50
	DFT-s-OFDM 16QAM	1	1	21.39	21.33	21.30	22.50
		1	23	21.22	21.27	21.33	22.50
		12	6	21.66	21.52	21.51	22.50
	DFT-s-OFDM 64QAM	1	1	21.09	21.01	20.89	21.50
		1	23	20.80	20.89	20.94	21.50
		12	6	21.40	21.37	21.34	21.50
	DFT-s-OFDM 256QAM	1	1	19.02	18.90	18.82	20.00
		1	23	18.70	18.66	18.80	20.00
		12	6	19.03	18.96	18.86	20.00
	CP-OFDM QPSK	1	1	21.63	21.48	21.52	22.50
	CP-OFDM 16QAM	1	1	21.46	21.34	21.33	22.50
	CP-OFDM 64QAM	1	1	19.77	19.75	19.66	21.00
	CP-OFDM 256QAM	1	1	16.43	16.41	16.38	17.50

Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				343000/1715	349000/1745	355000/1775	
10MHz	DFT-s-OFDM BPSK	1	1	23.13	23.13	22.97	24.50
		1	50	22.84	22.89	23.01	24.50
		25	12	23.52	23.42	23.41	24.50
		50	0	23.10	23.04	22.91	24.00
	DFT-s-OFDM QPSK	1	1	23.10	23.06	22.98	24.50
		1	50	22.91	22.91	23.04	24.50
		25	12	23.57	23.59	23.54	24.50
		50	0	22.60	22.66	22.70	23.50
	DFT-s-OFDM 16QAM	1	1	21.38	21.32	21.27	22.50
		1	50	21.20	21.22	21.31	22.50
		25	12	21.63	21.51	21.49	22.50
	DFT-s-OFDM 64QAM	1	1	21.05	20.98	20.85	21.50
		1	50	20.78	20.85	20.91	21.50
		25	12	21.38	21.33	21.31	21.50
	DFT-s-OFDM 256QAM	1	1	18.97	18.83	18.77	20.00
		1	50	18.67	18.61	18.77	20.00
		25	12	18.97	18.91	18.84	20.00
	CP-OFDM	1	1	21.60	21.47	21.46	22.50

	QPSK						
	CP-OFDM 16QAM	1	1	21.42	21.31	21.29	22.50
	CP-OFDM 64QAM	1	1	19.75	19.71	19.63	21.00
	CP-OFDM 256QAM	1	1	16.41	16.37	16.35	17.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				343500/1717.5	349000/1745	354500/1772.5	
15MHz	DFT-s-OFDM BPSK	1	1	23.10	23.11	22.93	24.50
		1	77	22.82	22.85	22.98	24.50
		36	18	23.49	23.37	23.37	24.50
		75	0	23.07	22.99	22.87	24.00
	DFT-s-OFDM QPSK	1	1	23.08	23.02	22.93	24.50
		1	77	22.89	22.89	23.00	24.50
		36	18	23.57	23.58	23.52	24.50
		75	0	22.60	22.62	22.67	23.50
	DFT-s-OFDM 16QAM	1	1	21.38	21.30	21.24	22.50
		1	77	21.17	21.20	21.27	22.50
		36	18	21.61	21.47	21.46	22.50
	DFT-s-OFDM 64QAM	1	1	21.02	20.93	20.81	21.50
		1	77	20.75	20.80	20.87	21.50
		36	18	21.36	21.29	21.26	21.50
	DFT-s-OFDM 256QAM	1	1	18.94	18.83	18.74	20.00
		1	77	18.64	18.63	18.74	20.00
		36	18	18.98	18.89	18.80	20.00
	CP-OFDM QPSK	1	1	21.58	21.43	21.47	22.50
	CP-OFDM 16QAM	1	1	21.39	21.26	21.25	22.50
	CP-OFDM 64QAM	1	1	19.72	19.66	19.59	21.00
	CP-OFDM 256QAM	1	1	16.39	16.33	16.30	17.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				344000/1720	349000/1745	354000/1770	
20MHz	DFT-s-OFDM BPSK	1	1	23.12	23.12	22.96	24.50
		1	104	22.85	22.90	23.02	24.50
		50	25	23.51	23.41	23.40	24.50
		100	0	23.10	23.04	22.91	24.00
	DFT-s-OFDM QPSK	1	1	23.11	23.07	22.97	24.50
		1	104	22.91	22.93	23.05	24.50
		50	25	23.61	23.60	23.56	24.50

		100	0	22.64	22.65	22.69	23.50
	DFT-s-OFDM 16QAM	1	1	21.42	21.34	21.27	22.50
		1	104	21.20	21.22	21.30	22.50
		50	25	21.64	21.52	21.50	22.50
	DFT-s-OFDM 64QAM	1	1	21.04	20.97	20.84	21.50
		1	104	20.78	20.85	20.91	21.50
		50	25	21.39	21.34	21.30	21.50
	DFT-s-OFDM 256QAM	1	1	18.96	18.82	18.76	20.00
		1	104	18.67	18.63	18.77	20.00
		50	25	18.97	18.91	18.83	20.00
	CP-OFDM QPSK	1	1	21.61	21.48	21.47	22.50
	CP-OFDM 16QAM	1	1	21.41	21.30	21.28	22.50
	CP-OFDM 64QAM	1	1	19.75	19.71	19.63	21.00
	CP-OFDM 256QAM	1	1	16.42	16.38	16.34	17.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				345000/1725	349000/1745	353000/1765	
30MHz	DFT-s-OFDM BPSK	1	1	23.11	23.08	22.94	24.50
		1	158	22.83	22.89	22.99	24.50
		80	40	23.48	23.36	23.36	24.50
		160	0	23.08	23.00	22.88	24.00
	DFT-s-OFDM QPSK	1	1	23.08	23.02	22.93	24.50
		1	158	22.88	22.90	23.01	24.50
		80	40	23.59	23.56	23.51	24.50
		160	0	22.62	22.63	22.67	23.50
	DFT-s-OFDM 16QAM	1	1	21.40	21.31	21.25	22.50
		1	158	21.18	21.18	21.27	22.50
		80	40	21.61	21.50	21.47	22.50
	DFT-s-OFDM 64QAM	1	1	21.01	20.92	20.80	21.50
		1	158	20.76	20.81	20.88	21.50
		80	40	21.36	21.29	21.26	21.50
	DFT-s-OFDM 256QAM	1	1	18.91	18.80	18.74	20.00
		1	158	18.65	18.60	18.75	20.00
		80	40	18.98	18.90	18.84	20.00
	CP-OFDM QPSK	1	1	21.60	21.50	21.48	22.50
	CP-OFDM 16QAM	1	1	21.39	21.27	21.27	22.50
	CP-OFDM 64QAM	1	1	19.73	19.67	19.60	21.00

	CP-OFDM 256QAM	1	1	16.39	16.33	16.30	17.50

Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				346000/1730	349000/1745	352000/1760	
40MHz	DFT-s-OFDM BPSK	1	1	23.08	23.04	22.91	24.50
		1	214	22.82	22.85	22.97	24.50
		108	54	23.46	23.35	23.33	24.50
		216	0	23.05	22.95	22.84	24.00
	DFT-s-OFDM QPSK	1	1	**23.06**	**22.98**	22.90	24.50
		1	214	22.85	22.85	**22.97**	24.50
		108	54	**23.46**	23.44	23.40	24.50
		216	0	22.59	22.59	**22.62**	23.50
	DFT-s-OFDM 16QAM	1	1	21.37	21.29	21.21	22.50
		1	214	21.15	21.15	21.25	22.50
		108	54	21.58	21.46	21.44	22.50
	DFT-s-OFDM 64QAM	1	1	20.98	20.90	20.77	21.50
		1	214	20.73	20.76	20.84	21.50
		108	54	21.34	21.25	21.23	21.50
	DFT-s-OFDM 256QAM	1	1	18.89	18.76	18.69	20.00
		1	214	18.61	18.58	18.71	20.00
		108	54	18.92	18.84	18.78	20.00
	CP-OFDM QPSK	1	1	21.55	21.42	21.41	22.50
	CP-OFDM 16QAM	1	1	21.35	21.23	21.21	22.50
	CP-OFDM 64QAM	1	1	19.70	19.62	19.56	21.00
	CP-OFDM 256QAM	1	1	16.37	16.29	16.27	17.50

NR n66(NSA)							
Receiver on-Main Ant2				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				342500/1712.5	349000/1745	355500/1777.5	
5MHz	DFT-s-OFDM BPSK	1	1	17.98	17.97	18.08	19.00
		1	23	17.87	17.93	17.99	19.00
		12	6	18.21	18.38	18.28	19.00
		25	0	17.99	18.26	18.10	19.00
	DFT-s-OFDM QPSK	1	1	17.92	18.13	17.99	19.00
		1	23	18.08	18.01	18.05	19.00
		12	6	18.05	18.45	18.14	19.00
		25	0	18.03	18.25	18.23	19.00
	DFT-s-OFDM	1	1	17.84	17.61	18.00	19.00

	16QAM	1	23	17.59	17.54	17.68	19.00
		12	6	17.78	18.36	17.86	19.00
	DFT-s-OFDM 64QAM	1	1	17.86	17.73	17.60	19.00
		1	23	17.98	17.61	17.92	19.00
		12	6	18.28	18.47	18.31	19.00
	DFT-s-OFDM 256QAM	1	1	18.04	18.35	18.25	19.00
		1	23	18.09	18.16	18.04	19.00
		12	6	17.97	18.43	18.14	19.00
	CP-OFDM QPSK	1	1	18.11	17.95	18.01	19.00
	CP-OFDM 16QAM	1	1	18.02	18.27	18.22	19.00
	CP-OFDM 64QAM	1	1	17.43	17.58	17.46	19.00
	CP-OFDM 256QAM	1	1	16.25	16.03	16.22	17.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				343000/1715	349000/1745	355000/1775	
10MHz	DFT-s-OFDM BPSK	1	1	18.00	17.98	18.11	19.00
		1	50	17.90	17.98	18.03	19.00
		25	12	18.23	18.42	18.31	19.00
		50	0	18.02	18.31	18.14	19.00
	DFT-s-OFDM QPSK	1	1	17.95	18.18	18.03	19.00
		1	50	18.10	18.05	18.10	19.00
		25	12	18.09	18.47	18.18	19.00
		50	0	18.07	18.28	18.25	19.00
	DFT-s-OFDM 16QAM	1	1	17.88	17.65	18.03	19.00
		1	50	17.62	17.56	17.71	19.00
		25	12	17.81	18.41	17.90	19.00
	DFT-s-OFDM 64QAM	1	1	17.88	17.77	17.63	19.00
		1	50	18.01	17.66	17.96	19.00
		25	12	18.31	18.52	18.35	19.00
	DFT-s-OFDM 256QAM	1	1	18.06	18.34	18.27	19.00
		1	50	18.12	18.16	18.07	19.00
		25	12	17.96	18.45	18.17	19.00
	CP-OFDM QPSK	1	1	18.14	18.00	18.01	19.00
	CP-OFDM 16QAM	1	1	18.04	18.31	18.25	19.00
	CP-OFDM 64QAM	1	1	17.46	17.63	17.50	19.00
	CP-OFDM 256QAM	1	1	16.28	16.08	16.26	17.50

Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				343500/1717.5	349000/1745	354500/1772.5	
15MHz	DFT-s-OFDM BPSK	1	1	17.99	17.94	18.09	19.00
		1	77	17.88	17.97	18.00	19.00
		36	18	18.20	18.37	18.27	19.00
		75	0	18.00	18.27	18.11	19.00
	DFT-s-OFDM QPSK	1	1	17.92	18.13	17.99	19.00
		1	77	18.07	18.02	18.06	19.00
		36	18	18.07	18.43	18.13	19.00
		75	0	18.05	18.26	18.23	19.00
	DFT-s-OFDM 16QAM	1	1	17.86	17.62	18.01	19.00
		1	77	17.60	17.52	17.68	19.00
		36	18	17.78	18.39	17.87	19.00
	DFT-s-OFDM 64QAM	1	1	17.85	17.72	17.59	19.00
		1	77	17.99	17.62	17.93	19.00
		36	18	18.28	18.47	18.31	19.00
	DFT-s-OFDM 256QAM	1	1	18.01	18.32	18.25	19.00
		1	77	18.10	18.13	18.05	19.00
		36	18	17.97	18.44	18.18	19.00
	CP-OFDM QPSK	1	1	18.13	18.02	18.02	19.00
	CP-OFDM 16QAM	1	1	18.02	18.28	18.24	19.00
	CP-OFDM 64QAM	1	1	17.44	17.59	17.47	19.00
	CP-OFDM 256QAM	1	1	16.25	16.03	16.22	17.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				344000/1720	349000/1745	354000/1770	
20MHz	DFT-s-OFDM BPSK	1	1	17.96	17.90	18.06	19.00
		1	104	17.87	17.93	17.98	19.00
		50	25	18.18	18.36	18.24	19.00
		100	0	17.97	18.22	18.07	19.00
	DFT-s-OFDM QPSK	1	1	17.90	18.09	17.96	19.00
		1	104	18.04	17.97	18.02	19.00
		50	25	18.04	18.38	18.09	19.00
		100	0	18.02	18.22	18.18	19.00
	DFT-s-OFDM 16QAM	1	1	17.83	17.60	17.97	19.00
		1	104	17.57	17.49	17.66	19.00
		50	25	17.75	18.35	17.84	19.00
	DFT-s-OFDM 64QAM	1	1	17.82	17.70	17.56	19.00
		1	104	17.96	17.57	17.89	19.00
		50	25	18.26	18.43	18.28	19.00

	DFT-s-OFDM 256QAM	1	1	17.99	18.28	18.20	19.00
		1	104	18.06	18.11	18.01	19.00
		50	25	17.91	18.38	18.12	19.00
	CP-OFDM QPSK	1	1	18.08	17.94	17.95	19.00
	CP-OFDM 16QAM	1	1	17.98	18.24	18.18	19.00
	CP-OFDM 64QAM	1	1	17.41	17.54	17.43	19.00
	CP-OFDM 256QAM	1	1	16.23	15.99	16.19	17.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				345000/1725	349000/1745	353000/1765	
30MHz	DFT-s-OFDM BPSK	1	1	17.94	17.85	18.03	19.00
		1	158	17.86	17.93	17.96	19.00
		80	40	18.14	18.30	18.19	19.00
		160	0	17.95	18.18	18.04	19.00
	DFT-s-OFDM QPSK	1	1	17.88	18.05	17.91	19.00
		1	158	18.01	17.96	17.99	19.00
		80	40	18.06	18.35	18.06	19.00
		160	0	18.04	18.19	18.15	19.00
	DFT-s-OFDM 16QAM	1	1	17.85	17.59	17.95	19.00
		1	158	17.55	17.45	17.62	19.00
		80	40	17.73	18.34	17.82	19.00
	DFT-s-OFDM 64QAM	1	1	17.78	17.64	17.51	19.00
		1	158	17.94	17.53	17.86	19.00
		80	40	18.24	18.39	18.23	19.00
	DFT-s-OFDM 256QAM	1	1	17.93	18.25	18.17	19.00
		1	158	18.04	18.10	17.99	19.00
		80	40	17.92	18.37	18.12	19.00
	CP-OFDM QPSK	1	1	18.08	17.97	17.97	19.00
	CP-OFDM 16QAM	1	1	17.95	18.20	18.16	19.00
	CP-OFDM 64QAM	1	1	17.39	17.50	17.40	19.00
	CP-OFDM 256QAM	1	1	16.21	15.95	16.14	17.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				346000/1730	349000/1745	352000/1760	
40MHz	DFT-s-OFDM BPSK	1	1	17.91	17.81	18.00	19.00
		1	214	17.85	17.89	17.94	19.00
		108	54	18.12	18.29	18.16	19.00

		216	0	17.92	18.13	18.00	19.00
	DFT-s-OFDM QPSK	1	1	17.86	**18.01**	17.88	19.00
		1	214	**17.98**	17.91	**17.95**	19.00
		108	54	18.03	**18.30**	18.02	19.00
		216	0	18.01	**18.15**	18.10	19.00
	DFT-s-OFDM 16QAM	1	1	17.82	17.57	17.91	19.00
		1	214	17.52	17.42	17.60	19.00
		108	54	17.70	18.30	17.79	19.00
	DFT-s-OFDM 64QAM	1	1	17.75	17.62	17.48	19.00
		1	214	17.91	17.48	17.82	19.00
		108	54	18.22	18.35	18.20	19.00
	DFT-s-OFDM 256QAM	1	1	17.91	18.21	18.12	19.00
		1	214	18.00	18.08	17.95	19.00
		108	54	17.86	18.31	18.06	19.00
	CP-OFDM QPSK	1	1	18.03	17.89	17.90	19.00
	CP-OFDM 16QAM	1	1	17.91	18.16	18.10	19.00
	CP-OFDM 64QAM	1	1	17.36	17.45	17.36	19.00
	CP-OFDM 256QAM	1	1	16.19	15.91	16.11	17.50

NR n71(SA&NSA)							
Normal power & Receiver on & Receiver off & Hotspot on-Main Ant0				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				133100/665.5	136100/680.5	139100/695.5	
5MHz	DFT-s-OFDM BPSK	1	1	23.82	23.88	23.77	24.50
		1	23	23.72	23.76	23.76	24.50
		12	6	23.92	23.95	23.97	24.50
		25	0	23.32	23.41	23.42	24.00
	DFT-s-OFDM QPSK	1	1	23.73	23.79	23.78	24.50
		1	23	23.74	23.72	23.75	24.50
		12	6	23.79	23.95	23.94	24.50
		25	0	22.92	23.37	23.01	23.50
	DFT-s-OFDM 16QAM	1	1	22.40	22.41	22.49	23.00
		1	23	22.44	22.47	22.46	23.00
		12	6	22.38	22.41	22.44	23.00
	DFT-s-OFDM 64QAM	1	1	21.18	21.20	21.20	22.00
		1	23	21.12	21.17	21.02	22.00
		12	6	21.47	21.54	21.55	22.00
	DFT-s-OFDM	1	1	19.74	19.70	19.72	20.00

	256QAM	1	23	19.68	19.61	19.67	20.00
		12	6	19.44	19.52	19.50	20.00
	CP-OFDM QPSK	1	1	22.66	22.58	22.61	23.00
	CP-OFDM 16QAM	1	1	21.94	21.91	21.99	22.50
	CP-OFDM 64QAM	1	1	20.96	20.90	20.91	21.00
	CP-OFDM 256QAM	1	1	17.84	17.97	17.91	18.00
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				133600/668	136100/680.5	138600/693	
10MHz	DFT-s-OFDM BPSK	1	1	23.75	23.74	23.68	24.50
		1	50	23.69	23.72	23.70	24.50
		25	12	23.82	23.82	23.84	24.50
		50	0	23.25	23.28	23.32	24.00
	DFT-s-OFDM QPSK	1	1	23.67	23.67	23.65	24.50
		1	50	23.65	23.65	23.65	24.50
		25	12	23.80	23.84	23.84	24.50
		50	0	22.93	23.27	22.90	23.50
	DFT-s-OFDM 16QAM	1	1	22.41	22.37	22.41	23.00
		1	50	22.37	22.36	22.36	23.00
		25	12	22.31	22.35	22.40	23.00
	DFT-s-OFDM 64QAM	1	1	21.07	21.06	21.07	22.00
		1	50	21.05	21.04	20.92	22.00
		25	12	21.41	21.42	21.42	22.00
	DFT-s-OFDM 256QAM	1	1	19.60	19.60	19.61	20.00
		1	50	19.60	19.57	19.59	20.00
		25	12	19.40	19.44	19.44	20.00
	CP-OFDM QPSK	1	1	22.64	22.68	22.62	23.00
	CP-OFDM 16QAM	1	1	22.03	21.87	21.95	22.50
	CP-OFDM 64QAM	1	1	20.93	20.99	20.93	21.00
	CP-OFDM 256QAM	1	1	17.96	17.88	17.94	18.00
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				134100/670.5	136100/680.5	138100/690.5	
15MHz	DFT-s-OFDM BPSK	1	1	23.77	23.79	23.71	24.50
		1	77	23.70	23.72	23.72	24.50
		36	18	23.86	23.88	23.89	24.50
		75	0	23.27	23.32	23.35	24.00

	DFT-s-OFDM QPSK	1	1	23.69	23.71	23.70	24.50
		1	77	23.68	23.66	23.68	24.50
		36	18	23.78	23.87	23.87	24.50
		75	0	22.91	23.30	22.93	23.50
	DFT-s-OFDM 16QAM	1	1	22.39	22.38	22.43	23.00
		1	77	22.39	22.40	22.40	23.00
		36	18	22.38	22.33	22.27	23.00
	DFT-s-OFDM 64QAM	1	1	21.11	21.12	21.12	22.00
		1	36	21.07	21.08	20.95	22.00
		18	9	21.43	21.46	21.47	22.00
	DFT-s-OFDM 256QAM	1	1	19.66	19.63	19.64	20.00
		1	77	19.62	19.58	19.61	20.00
		36	18	19.39	19.45	19.44	20.00
	CP-OFDM QPSK	1	1	22.60	22.62	22.66	23.00
	CP-OFDM 16QAM	1	1	21.93	22.14	21.85	22.50
	CP-OFDM 64QAM	1	1	20.91	20.89	20.96	21.00
	CP-OFDM 256QAM	1	1	17.97	17.94	17.85	18.00
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				134600/673	136100/680.5	137600/688	
20MHz	DFT-s-OFDM BPSK	1	1	23.72	23.70	23.65	24.50
		1	104	23.68	23.68	23.68	24.50
		50	25	23.80	23.81	23.81	24.50
		100	0	23.22	23.23	23.28	24.00
	DFT-s-OFDM QPSK	1	1	**23.65**	**23.63**	**23.62**	24.50
		1	104	23.62	23.60	23.61	24.50
		50	25	23.77	23.79	**23.80**	24.50
		100	0	22.90	**23.23**	22.85	23.50
	DFT-s-OFDM 16QAM	1	1	22.38	22.35	22.37	23.00
		1	104	22.34	22.33	22.34	23.00
		50	25	22.48	22.33	22.30	23.00
	DFT-s-OFDM 64QAM	1	1	21.04	21.04	21.04	22.00
		1	104	21.02	20.99	20.88	22.00
		50	25	21.39	21.38	21.39	22.00
	DFT-s-OFDM 256QAM	1	1	19.58	19.56	19.56	20.00
		1	104	19.56	19.55	19.55	20.00
		50	25	19.34	19.38	19.38	20.00
	CP-OFDM QPSK	1	1	22.57	22.58	22.61	23.00
	CP-OFDM	1	1	21.90	21.98	21.81	22.50

	16QAM						
	CP-OFDM 64QAM	1	1	20.88	20.86	20.94	21.00
	CP-OFDM 256QAM	1	1	17.94	17.90	17.82	18.00

NR n77 subset-1 (NSA)							
Normal power-Main Ant2				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				630666/3460	633332/3500	635998/3540	
20MHz	DFT-s-OFDM BPSK	1	1	25.85	26.06	25.81	27.20
		1	49	25.75	25.83	25.73	27.20
		25	12	26.59	26.69	26.55	27.20
		50	0	26.42	26.61	26.38	26.70
	DFT-s-OFDM QPSK	1	1	25.72	25.89	25.70	27.20
		1	49	25.73	25.83	25.65	27.20
		25	12	26.37	26.62	26.38	27.20
		50	0	25.77	25.97	25.81	26.20
	DFT-s-OFDM 16QAM	1	1	24.74	24.83	24.75	25.20
		1	49	24.94	25.08	24.90	25.20
		25	12	24.97	25.11	25.03	25.20
	DFT-s-OFDM 64QAM	1	1	23.92	24.03	23.86	24.70
		1	49	23.92	24.11	23.88	24.70
		25	12	24.49	24.66	24.47	24.70
	DFT-s-OFDM 256QAM	1	1	22.18	22.31	22.11	22.70
		1	49	22.02	22.08	21.96	22.70
		25	12	22.49	22.63	22.41	22.70
	CP-OFDM QPSK	1	1	24.56	24.66	24.53	25.20
	CP-OFDM 16QAM	1	1	24.38	24.52	24.32	25.20
	CP-OFDM 64QAM	1	1	22.66	22.85	22.62	23.70
	CP-OFDM 256QAM	1	1	19.32	19.49	19.30	20.20
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				631000/3465	633332/3500	635666/3535	
30MHz	DFT-s-OFDM BPSK	1	1	25.87	26.07	25.84	27.20
		1	76	25.78	25.88	25.77	27.20
		36	18	26.61	26.73	26.58	27.20
		75	0	26.45	26.66	26.42	26.70
	DFT-s-OFDM QPSK	1	1	25.75	25.94	25.74	27.20
		1	76	25.75	25.87	25.70	27.20

		36	18	26.41	26.64	26.42	27.20
		75	0	25.81	26.00	25.83	26.20
	DFT-s-OFDM 16QAM	1	1	24.78	24.87	24.78	25.20
		1	76	24.97	25.10	24.93	25.20
		36	18	25.07	24.97	25.06	25.20
	DFT-s-OFDM 64QAM	1	1	23.94	24.07	23.89	24.70
		1	76	23.95	24.16	23.92	24.70
		36	18	24.52	24.55	24.51	24.70
	DFT-s-OFDM 256QAM	1	1	22.20	22.30	22.13	22.70
		1	76	22.05	22.08	21.99	22.70
		36	18	22.48	22.65	22.44	22.70
	CP-OFDM QPSK	1	1	24.59	24.71	24.53	25.20
	CP-OFDM 16QAM	1	1	24.40	24.56	24.35	25.20
	CP-OFDM 64QAM	1	1	22.69	22.90	22.66	23.70
	CP-OFDM 256QAM	1	1	19.35	19.54	19.34	20.20
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				631332/3470	633332/3500	635332/3530	
40MHz	DFT-s-OFDM BPSK	1	1	25.86	26.03	25.82	27.20
		1	104	25.76	25.87	25.74	27.20
		50	25	26.58	26.68	26.54	27.20
		100	0	26.43	26.62	26.39	26.70
	DFT-s-OFDM QPSK	1	1	25.72	25.89	25.70	27.20
		1	104	25.72	25.84	25.66	27.20
		50	25	26.39	26.60	26.37	27.20
		100	0	25.79	25.98	25.81	26.20
	DFT-s-OFDM 16QAM	1	1	24.76	24.84	24.76	25.20
		1	104	24.95	25.06	24.90	25.20
		50	25	24.96	25.08	24.85	25.20
	DFT-s-OFDM 64QAM	1	1	23.91	24.02	23.85	24.70
		1	104	23.93	24.12	23.89	24.70
		50	25	24.49	24.66	24.47	24.70
	DFT-s-OFDM 256QAM	1	1	22.15	22.28	22.11	22.70
		1	104	22.03	22.05	21.97	22.70
		50	25	22.49	22.64	22.45	22.70
	CP-OFDM QPSK	1	1	24.58	24.73	24.54	25.20
	CP-OFDM 16QAM	1	1	24.38	24.53	24.34	25.20
	CP-OFDM	1	1	22.67	22.86	22.63	23.70

	64QAM						
	CP-OFDM 256QAM	1	1	19.32	19.49	19.30	20.20
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				631666/3475	633332/3500	634998/3525	
50MHz	DFT-s-OFDM BPSK	1	1	25.83	25.99	25.79	27.20
		1	131	25.75	25.83	25.72	27.20
		64	32	26.56	26.67	26.51	27.20
		128	0	26.40	26.57	26.35	26.70
	DFT-s-OFDM QPSK	1	1	25.70	25.85	25.67	27.20
		1	131	25.69	25.79	25.62	27.20
		64	32	26.36	26.55	26.33	27.20
		128	0	25.76	25.94	25.76	26.20
	DFT-s-OFDM 16QAM	1	1	24.73	24.82	24.72	25.20
		1	131	24.92	25.03	24.88	25.20
		64	32	25.07	25.11	25.06	25.20
	DFT-s-OFDM 64QAM	1	1	23.88	24.00	23.82	24.70
		1	131	23.90	24.07	23.85	24.70
		64	32	24.47	24.62	24.44	24.70
	DFT-s-OFDM 256QAM	1	1	22.13	22.24	22.06	22.70
		1	131	21.99	22.03	21.93	22.70
		64	32	22.43	22.58	22.39	22.70
	CP-OFDM QPSK	1	1	24.53	24.65	24.47	25.20
	CP-OFDM 16QAM	1	1	24.34	24.49	24.28	25.20
	CP-OFDM 64QAM	1	1	22.64	22.81	22.59	23.70
	CP-OFDM 256QAM	1	1	19.30	19.45	19.27	20.20
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				632000/3480	633332/3500	634666/3520	
60MHz	DFT-s-OFDM BPSK	1	1	25.80	25.97	25.75	27.20
		1	160	25.73	25.79	25.69	27.20
		81	40	26.53	26.62	26.47	27.20
		162	0	26.37	26.52	26.31	26.70
	DFT-s-OFDM QPSK	1	1	25.68	25.81	25.62	27.20
		1	160	25.67	25.77	25.58	27.20
		81	40	26.36	26.54	26.31	27.20
		162	0	25.76	25.90	25.73	26.20
	DFT-s-OFDM 16QAM	1	1	24.73	24.80	24.69	25.20
		1	160	24.89	25.01	24.84	25.20
		81	40	25.03	25.10	24.97	25.20

	DFT-s-OFDM 64QAM	1	1	23.85	23.95	23.78	24.70
		1	160	23.87	24.02	23.81	24.70
		81	40	24.45	24.58	24.39	24.70
	DFT-s-OFDM 256QAM	1	1	22.10	22.24	22.03	22.70
		1	160	21.96	22.05	21.90	22.70
		81	40	22.44	22.56	22.35	22.70
	CP-OFDM QPSK	1	1	24.51	24.61	24.48	25.20
	CP-OFDM 16QAM	1	1	24.31	24.44	24.24	25.20
	CP-OFDM 64QAM	1	1	22.61	22.76	22.55	23.70
	CP-OFDM 256QAM	1	1	19.28	19.41	19.22	20.20
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				632333/3485	633332/3500	634333/3515	
70MHz	DFT-s-OFDM BPSK	1	1	25.82	25.98	25.78	27.20
		1	187	25.76	25.84	25.73	27.20
		92	45	26.55	26.66	26.50	27.20
		180	0	26.40	26.57	26.35	26.70
	DFT-s-OFDM QPSK	1	1	25.71	25.86	25.66	27.20
		1	187	25.69	25.81	25.63	27.20
		92	45	26.40	26.56	26.35	27.20
		180	0	25.80	25.93	25.75	26.20
	DFT-s-OFDM 16QAM	1	1	24.77	24.84	24.72	25.20
		1	187	24.92	25.03	24.87	25.20
		92	46	24.86	25.06	25.14	25.20
	DFT-s-OFDM 64QAM	1	1	23.87	23.99	23.81	24.70
		1	187	23.90	24.07	23.85	24.70
		92	46	24.48	24.63	24.43	24.70
	DFT-s-OFDM 256QAM	1	1	22.12	22.23	22.05	22.70
		1	187	21.99	22.05	21.93	22.70
		92	46	22.43	22.58	22.38	22.70
	CP-OFDM QPSK	1	1	24.54	24.66	24.48	25.20
	CP-OFDM 16QAM	1	1	24.33	24.48	24.27	25.20
	CP-OFDM 64QAM	1	1	22.64	22.81	22.59	23.70
	CP-OFDM 256QAM	1	1	19.31	19.46	19.26	20.20

Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				632666/3490	633332/3500	633998/3510	
80MHz	DFT-s-OFDM BPSK	1	1	25.81	25.94	25.76	27.20
		1	215	25.74	25.83	25.70	27.20
		108	54	26.52	26.61	26.46	27.20
		216	0	26.38	26.53	26.32	26.70
	DFT-s-OFDM QPSK	1	1	25.68	25.81	25.62	27.20
		1	215	25.66	25.78	25.59	27.20
		108	54	26.38	26.52	26.30	27.20
		216	0	25.78	25.91	25.73	26.20
	DFT-s-OFDM 16QAM	1	1	24.75	24.81	24.70	25.20
		1	215	24.90	24.99	24.84	25.20
		108	54	24.90	24.95	25.11	25.20
	DFT-s-OFDM 64QAM	1	1	23.84	23.94	23.77	24.70
		1	215	23.88	24.03	23.82	24.70
		108	54	24.45	24.58	24.39	24.70
	DFT-s-OFDM 256QAM	1	1	22.07	22.21	22.03	22.70
		1	215	21.97	22.02	21.91	22.70
		108	54	22.44	22.57	22.39	22.70
	CP-OFDM QPSK	1	1	24.53	24.68	24.49	25.20
	CP-OFDM 16QAM	1	1	24.31	24.45	24.26	25.20
	CP-OFDM 64QAM	1	1	22.62	22.77	22.56	23.70
	CP-OFDM 256QAM	1	1	19.28	19.41	19.22	20.20

Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				633000/3495	633332/3500	633666/3505	
90MHz	DFT-s-OFDM BPSK	1	1	25.78	25.90	25.73	27.20
		1	243	25.73	25.79	25.68	27.20
		120	60	26.50	26.60	26.43	27.20
		243	0	26.35	26.48	26.28	26.70
	DFT-s-OFDM QPSK	1	1	25.66	25.77	25.59	27.20
		1	243	25.63	25.73	25.55	27.20
		120	60	26.35	26.47	26.26	27.20
		243	0	25.75	25.87	25.68	26.20
	DFT-s-OFDM 16QAM	1	1	24.72	24.79	24.66	25.20
		1	243	24.87	24.96	24.82	25.20
		120	60	25.13	25.02	25.10	25.20
	DFT-s-OFDM 64QAM	1	1	23.81	23.92	23.74	24.70
		1	243	23.85	23.98	23.78	24.70
		120	60	24.43	24.54	24.36	24.70

	DFT-s-OFDM 256QAM	1	1	22.05	22.17	21.98	22.70
		1	243	21.93	22.00	21.87	22.70
		120	60	22.38	22.51	22.33	22.70
	CP-OFDM QPSK	1	1	24.48	24.60	24.42	25.20
	CP-OFDM 16QAM	1	1	24.27	24.41	24.20	25.20
	CP-OFDM 64QAM	1	1	22.59	22.72	22.52	23.70
	CP-OFDM 256QAM	1	1	19.26	19.37	19.19	20.20
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				/	633332/3500	/	
100MHz	DFT-s-OFDM BPSK	1	1	/	25.58	/	27.20
		1	271	/	25.60	/	27.20
		135	67	/	26.28	/	27.20
		270	0	/	26.12	/	26.70
	DFT-s-OFDM QPSK	1	1	/	**25.43**	/	27.20
		1	271	/	25.42	/	27.20
		135	67	/	**26.11**	/	27.20
		270	0	/	**25.53**	/	26.20
	DFT-s-OFDM 16QAM	1	1	/	24.57	/	25.20
		1	271	/	24.69	/	25.20
		135	67	/	24.90	/	25.20
	DFT-s-OFDM 64QAM	1	1	/	23.58	/	24.70
		1	271	/	23.62	/	24.70
		135	67	/	24.20	/	24.70
	DFT-s-OFDM 256QAM	1	1	/	21.83	/	22.70
		1	271	/	21.78	/	22.70
		135	67	/	22.20	/	22.70
	CP-OFDM QPSK	1	1	/	24.32	/	25.20
	CP-OFDM 16QAM	1	1	/	24.04	/	25.20
	CP-OFDM 64QAM	1	1	/	22.36	/	23.70
	CP-OFDM 256QAM	1	1	/	19.03	/	20.20

NR n77subset-2(NSA)							
Normal power-Main Ant2				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				647334/3710	656000/3840	664666/3970	
20MHz	DFT-s-OFDM BPSK	1	1	25.63	25.44	25.57	27.20
		1	49	25.62	25.54	26.18	27.20
		25	12	25.72	25.79	26.30	27.20
		50	0	25.45	26.13	26.56	26.70
	DFT-s-OFDM QPSK	1	1	25.92	25.52	26.21	27.20
		1	49	25.87	26.17	26.20	27.20
		25	12	25.47	26.31	26.58	27.20
		50	0	25.27	26.18	26.07	26.20
	DFT-s-OFDM 16QAM	1	1	24.87	24.88	25.03	25.20
		1	49	25.10	24.87	24.96	25.20
		25	12	25.06	25.14	24.92	25.20
	DFT-s-OFDM 64QAM	1	1	23.85	23.82	24.15	24.70
		1	49	24.05	24.16	23.84	24.70
		25	12	24.39	24.63	24.65	24.70
	DFT-s-OFDM 256QAM	1	1	22.02	22.11	22.49	22.70
		1	49	22.31	22.32	22.11	22.70
		25	12	22.43	22.61	22.64	22.70
	CP-OFDM QPSK	1	1	24.45	24.80	24.49	25.20
	CP-OFDM 16QAM	1	1	24.20	24.55	24.74	25.20
	CP-OFDM 64QAM	1	1	22.59	22.90	22.93	23.70
	CP-OFDM 256QAM	1	1	19.22	19.54	19.84	20.20
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				647667/3715	656000/3840	664333/3965	
30MHz	DFT-s-OFDM BPSK	1	1	25.54	25.30	25.47	27.20
		1	76	25.60	25.47	26.13	27.20
		36	18	25.63	25.70	26.18	27.20
		75	0	25.37	25.99	26.45	26.70
	DFT-s-OFDM QPSK	1	1	25.87	25.41	26.09	27.20
		1	76	25.78	26.08	26.10	27.20
		36	18	25.47	26.19	26.49	27.20
		75	0	25.27	26.06	25.93	26.20
	DFT-s-OFDM 16QAM	1	1	24.87	24.85	25.19	25.20
		1	76	25.11	25.06	24.87	25.20
		36	18	25.06	24.90	24.97	25.20

	DFT-s-OFDM 64QAM	1	1	23.74	23.71	24.03	24.70
		1	76	23.97	24.02	23.73	24.70
		36	18	24.34	24.28	24.53	24.70
	DFT-s-OFDM 256QAM	1	1	21.91	21.99	22.35	22.70
		1	76	22.21	22.29	22.01	22.70
		36	18	22.32	22.33	22.51	22.70
	CP-OFDM QPSK	1	1	24.36	24.68	24.38	25.20
	CP-OFDM 16QAM	1	1	24.08	24.42	24.59	25.20
	CP-OFDM 64QAM	1	1	22.51	22.76	22.82	23.70
	CP-OFDM 256QAM	1	1	19.17	19.43	19.72	20.20
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				648000/3720	656000/3840	664000/3960	
40MHz	DFT-s-OFDM BPSK	1	1	25.65	25.49	25.60	27.20
		1	104	25.63	25.54	26.20	27.20
		50	25	25.76	25.85	26.35	27.20
		100	0	25.47	26.17	26.59	26.70
	DFT-s-OFDM QPSK	1	1	25.94	25.56	26.26	27.20
		1	104	25.90	26.18	26.23	27.20
		50	25	25.45	26.34	26.61	27.20
		100	0	25.25	26.01	26.10	26.20
	DFT-s-OFDM 16QAM	1	1	24.85	24.89	24.92	25.20
		1	104	25.38	25.13	25.00	25.20
		50	25	25.64	24.86	25.00	25.20
	DFT-s-OFDM 64QAM	1	1	23.89	23.88	24.20	24.70
		1	104	24.07	24.20	23.87	24.70
		50	25	24.41	24.38	24.70	24.70
	DFT-s-OFDM 256QAM	1	1	22.08	22.14	22.52	22.70
		1	104	22.33	22.33	22.13	22.70
		50	25	22.42	22.40	22.64	22.70
	CP-OFDM QPSK	1	1	24.45	24.77	24.47	25.20
	CP-OFDM 16QAM	1	1	24.23	24.59	24.76	25.20
	CP-OFDM 64QAM	1	1	22.61	22.94	22.96	23.70
	CP-OFDM 256QAM	1	1	19.24	19.58	19.89	20.20

Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				648333/3725	656000/3840	663666/3955	
50MHz	DFT-s-OFDM BPSK	1	1	25.59	25.39	25.53	27.20
		1	131	25.62	25.51	26.17	27.20
		64	32	25.69	25.77	26.26	27.20
		128	0	25.42	26.08	26.52	26.70
	DFT-s-OFDM QPSK	1	1	25.91	25.49	26.17	27.20
		1	131	25.84	26.14	26.17	27.20
		64	32	25.48	26.27	26.56	27.20
		128	0	25.28	26.13	26.01	26.20
	DFT-s-OFDM 16QAM	1	1	24.88	24.88	24.99	25.20
		1	131	25.13	25.00	24.93	25.20
		64	32	24.90	25.06	24.87	25.20
	DFT-s-OFDM 64QAM	1	1	23.81	23.79	24.11	24.70
		1	131	24.02	24.11	23.80	24.70
		64	32	24.38	24.40	24.61	24.70
	DFT-s-OFDM 256QAM	1	1	21.99	22.06	22.43	22.70
		1	131	22.27	22.32	22.07	22.70
		64	32	22.37	22.40	22.57	22.70
	CP-OFDM QPSK	1	1	24.41	24.73	24.43	25.20
	CP-OFDM 16QAM	1	1	24.15	24.50	24.67	25.20
	CP-OFDM 64QAM	1	1	22.56	22.85	22.89	23.70
	CP-OFDM 256QAM	1	1	19.21	19.51	19.80	20.20
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				648666/3730	656000/3840	663334/3950	
60MHz	DFT-s-OFDM BPSK	1	1	25.68	25.53	25.63	27.20
		1	160	25.64	25.58	26.22	27.20
		81	40	25.78	25.86	26.38	27.20
		162	0	25.50	26.22	26.63	26.70
	DFT-s-OFDM QPSK	1	1	25.96	25.60	26.29	27.20
		1	160	25.93	26.23	26.27	27.20
		81	40	25.48	26.39	26.65	27.20
		162	0	25.28	25.95	26.15	26.20
	DFT-s-OFDM 16QAM	1	1	24.88	24.91	25.13	25.20
		1	160	25.05	24.89	25.02	25.20
		81	40	25.10	24.90	25.02	25.20
	DFT-s-OFDM 64QAM	1	1	23.92	23.90	24.23	24.70
		1	160	24.10	24.25	23.91	24.70
		81	40	24.43	24.47	24.61	24.70

	DFT-s-OFDM 256QAM	1	1	22.10	22.18	22.57	22.70
		1	160	22.37	22.35	22.17	22.70
		81	40	22.48	22.62	22.70	22.70
	CP-OFDM QPSK	1	1	24.50	24.85	24.54	25.20
	CP-OFDM 16QAM	1	1	24.27	24.63	24.82	25.20
	CP-OFDM 64QAM	1	1	22.64	22.99	23.00	23.70
	CP-OFDM 256QAM	1	1	19.26	19.62	19.92	20.20
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				649000/3735	656000/3840	663000/3745	
70MHz	DFT-s-OFDM BPSK	1	1	25.53	25.26	25.45	27.20
		1	187	25.58	25.46	26.10	27.20
		92	45	25.60	25.65	26.14	27.20
		180	0	25.35	25.95	26.42	26.70
	DFT-s-OFDM QPSK	1	1	25.84	25.36	26.05	27.20
		1	187	25.75	26.05	26.06	27.20
		92	45	25.45	26.15	26.44	27.20
		180	0	25.25	26.04	25.91	26.20
	DFT-s-OFDM 16QAM	1	1	24.85	24.82	25.17	25.20
		1	187	24.76	25.10	24.84	25.20
		92	46	24.86	25.04	25.10	25.20
	DFT-s-OFDM 64QAM	1	1	23.71	23.66	23.99	24.70
		1	187	23.95	23.98	23.70	24.70
		92	46	24.31	24.62	24.49	24.70
	DFT-s-OFDM 256QAM	1	1	21.86	21.97	22.33	22.70
		1	187	22.19	22.26	21.99	22.70
		92	46	22.33	22.60	22.52	22.70
	CP-OFDM QPSK	1	1	24.35	24.70	24.39	25.20
	CP-OFDM 16QAM	1	1	24.06	24.39	24.58	25.20
	CP-OFDM 64QAM	1	1	22.49	22.72	22.79	23.70
	CP-OFDM 256QAM	1	1	19.14	19.38	19.68	20.20
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				649334/3740	656000/3840	662666/3940	
80MHz	DFT-s-OFDM BPSK	1	1	25.55	25.31	25.48	27.20
		1	215	25.59	25.46	26.12	27.20
		108	54	25.64	25.71	26.19	27.20

		216	0	25.37	25.99	26.45	26.70
	DFT-s-OFDM QPSK	1	1	25.86	25.40	26.10	27.20
		1	215	25.78	26.06	26.09	27.20
		108	54	25.43	26.18	26.47	27.20
		216	0	25.23	26.07	25.94	26.20
	DFT-s-OFDM 16QAM	1	1	24.83	24.83	25.19	25.20
		1	215	24.95	25.06	24.88	25.20
		108	54	25.10	25.18	24.97	25.20
	DFT-s-OFDM 64QAM	1	1	23.75	23.72	24.04	24.70
		1	215	23.97	24.02	23.73	24.70
		108	54	24.33	24.50	24.54	24.70
	DFT-s-OFDM 256QAM	1	1	21.92	22.00	22.36	22.70
		1	215	22.21	22.27	22.01	22.70
		108	54	22.32	22.60	22.52	22.70
	CP-OFDM QPSK	1	1	24.35	24.67	24.37	25.20
	CP-OFDM 16QAM	1	1	24.09	24.43	24.60	25.20
	CP-OFDM 64QAM	1	1	22.51	22.76	22.82	23.70
	CP-OFDM 256QAM	1	1	19.16	19.42	19.73	20.20
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				649666/3745	656000/3840	662333/3935	
90MHz	DFT-s-OFDM BPSK	1	1	25.69	25.57	25.65	27.20
		1	243	25.66	25.59	26.25	27.20
		120	60	25.81	25.91	26.42	27.20
		243	0	25.52	26.26	26.66	26.70
	DFT-s-OFDM QPSK	1	1	25.99	25.65	26.33	27.20
		1	243	25.96	26.26	26.31	27.20
		120	60	25.50	26.43	26.70	27.20
		243	0	25.30	26.10	26.17	26.20
	DFT-s-OFDM 16QAM	1	1	24.90	24.94	25.11	25.20
		1	243	25.02	25.02	25.05	25.20
		120	60	24.94	25.10	24.92	25.20
	DFT-s-OFDM 64QAM	1	1	23.95	23.95	24.27	24.70
		1	243	24.12	24.29	23.94	24.70
		120	60	24.46	24.33	24.60	24.70
	DFT-s-OFDM 256QAM	1	1	22.15	22.20	22.59	22.70
		1	243	22.39	22.38	22.19	22.70
		120	60	22.47	22.51	22.69	22.70
	CP-OFDM QPSK	1	1	24.51	24.83	24.53	25.20

	CP-OFDM 16QAM	1	1	24.29	24.66	24.83	25.20
	CP-OFDM 64QAM	1	1	22.66	23.03	23.03	23.70
	CP-OFDM 256QAM	1	1	19.29	19.67	19.96	20.20
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				650000/3750	656000/3840	662000/3930	
100MHz	DFT-s-OFDM BPSK	1	1	25.50	25.22	25.42	27.20
		1	271	25.57	25.42	26.08	27.20
		135	67	25.58	25.64	26.11	27.20
		270	0	25.32	25.90	26.38	26.70
	DFT-s-OFDM QPSK	1	1	**25.82**	25.32	26.02	27.20
		1	271	25.72	**26.00**	**26.03**	27.20
		135	67	25.42	26.10	**26.40**	27.20
		270	0	25.22	**26.00**	25.86	26.20
	DFT-s-OFDM 16QAM	1	1	24.82	24.80	25.13	25.20
		1	271	25.11	25.16	24.82	25.20
		135	67	25.06	24.92	24.99	25.20
	DFT-s-OFDM 64QAM	1	1	23.68	23.64	23.96	24.70
		1	271	23.92	23.93	23.66	24.70
		135	67	24.29	24.70	24.46	24.70
	DFT-s-OFDM 256QAM	1	1	21.84	21.93	22.28	22.70
		1	271	22.15	22.24	21.95	22.70
		135	67	22.27	22.62	22.46	22.70
	CP-OFDM QPSK	1	1	24.30	24.62	24.32	25.20
	CP-OFDM 16QAM	1	1	24.02	24.35	24.52	25.20
	CP-OFDM 64QAM	1	1	22.46	22.67	22.75	23.70
	CP-OFDM 256QAM	1	1	19.12	19.34	19.65	20.20

NR n77 subset-1 (NSA)							
Receiver on-Main Ant2				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				630666/3460	633332/3500	635998/3540	
20MHz	DFT-s-OFDM BPSK	1	1	17.10	17.07	16.95	18.00
		1	49	17.31	17.33	17.32	18.00
		25	12	17.87	17.86	17.81	18.00
		50	0	17.76	17.76	17.67	18.00
	DFT-s-OFDM	1	1	17.08	17.08	16.99	18.00

	QPSK	1	49	17.44	17.42	17.35	18.00
		25	12	17.93	17.90	17.78	18.00
		50	0	17.72	17.70	17.63	18.00
	DFT-s-OFDM 16QAM	1	1	16.75	16.74	16.71	18.00
		1	49	17.22	17.19	17.10	18.00
		25	12	17.83	17.82	17.79	18.00
	DFT-s-OFDM 64QAM	1	1	16.94	16.92	16.85	18.00
		1	49	17.23	17.23	17.14	18.00
		25	12	17.88	17.88	17.79	18.00
	DFT-s-OFDM 256QAM	1	1	17.63	17.55	17.44	18.00
		1	49	17.83	17.77	17.70	18.00
		25	12	17.90	17.87	17.78	18.00
	CP-OFDM QPSK	1	1	17.10	17.09	17.02	18.00
	CP-OFDM 16QAM	1	1	17.42	17.40	17.33	18.00
	CP-OFDM 64QAM	1	1	17.22	17.22	17.13	18.00
	CP-OFDM 256QAM	1	1	16.91	16.91	16.82	18.00
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				631000/3465	633332/3500	635666/3535	
30MHz	DFT-s-OFDM BPSK	1	1	17.08	17.06	16.92	18.00
		1	76	17.28	17.28	17.28	18.00
		36	18	17.85	17.82	17.78	18.00
		75	0	17.73	17.71	17.63	18.00
	DFT-s-OFDM QPSK	1	1	17.05	17.03	16.95	18.00
		1	76	17.42	17.38	17.30	18.00
		36	18	17.89	17.88	17.74	18.00
		75	0	17.68	17.67	17.61	18.00
	DFT-s-OFDM 16QAM	1	1	16.71	16.70	16.68	18.00
		1	76	17.19	17.17	17.07	18.00
		36	18	17.80	17.77	17.75	18.00
	DFT-s-OFDM 64QAM	1	1	16.92	16.88	16.82	18.00
		1	76	17.20	17.18	17.10	18.00
		36	18	17.85	17.83	17.75	18.00
	DFT-s-OFDM 256QAM	1	1	17.61	17.56	17.42	18.00
		1	76	17.80	17.77	17.67	18.00
		36	18	17.91	17.85	17.75	18.00
	CP-OFDM QPSK	1	1	17.07	17.04	17.02	18.00
	CP-OFDM 16QAM	1	1	17.40	17.36	17.30	18.00

	CP-OFDM 64QAM	1	1	17.19	17.17	17.09	18.00
	CP-OFDM 256QAM	1	1	16.88	16.86	16.78	18.00
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				631332/3470	633332/3500	635332/3530	
40MHz	DFT-s-OFDM BPSK	1	1	17.16	17.19	17.01	18.00
		1	104	17.31	17.36	17.34	18.00
		50	25	17.93	17.90	17.89	18.00
		100	0	17.81	17.85	17.74	18.00
	DFT-s-OFDM QPSK	1	1	17.11	17.15	17.06	18.00
		1	104	17.51	17.49	17.41	18.00
		50	25	17.93	17.80	17.85	18.00
		100	0	17.72	17.78	17.74	18.00
	DFT-s-OFDM 16QAM	1	1	16.75	16.75	16.78	18.00
		1	104	17.27	17.27	17.15	18.00
		50	25	17.88	17.86	17.83	18.00
	DFT-s-OFDM 64QAM	1	1	17.02	16.98	16.93	18.00
		1	104	17.28	17.32	17.21	18.00
		50	25	17.91	17.95	17.86	18.00
	DFT-s-OFDM 256QAM	1	1	17.71	17.67	17.55	18.00
		1	104	17.90	17.82	17.77	18.00
		50	25	17.83	17.65	17.87	18.00
	CP-OFDM QPSK	1	1	17.17	17.17	17.14	18.00
	CP-OFDM 16QAM	1	1	17.51	17.48	17.44	18.00
	CP-OFDM 64QAM	1	1	17.27	17.31	17.20	18.00
	CP-OFDM 256QAM	1	1	16.94	16.98	16.89	18.00
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				631666/3475	633332/3500	634998/3525	
50MHz	DFT-s-OFDM BPSK	1	1	17.17	17.23	17.03	18.00
		1	131	17.33	17.37	17.37	18.00
		64	32	17.96	17.95	17.93	18.00
		128	0	17.83	17.89	17.77	18.00
	DFT-s-OFDM QPSK	1	1	17.14	17.20	17.10	18.00
		1	131	17.54	17.52	17.45	18.00
		64	32	17.95	17.90	17.90	18.00
		128	0	17.74	17.80	17.76	18.00
	DFT-s-OFDM 16QAM	1	1	16.77	16.78	16.80	18.00
		1	131	17.29	17.31	17.18	18.00

		64	32	17.91	17.88	17.86	18.00
	DFT-s-OFDM 64QAM	1	1	17.05	17.03	16.97	18.00
		1	131	17.30	17.36	17.24	18.00
		64	32	17.94	17.82	17.90	18.00
	DFT-s-OFDM 256QAM	1	1	17.76	17.69	17.57	18.00
		1	131	17.92	17.85	17.79	18.00
		64	32	17.72	17.80	17.86	18.00
	CP-OFDM QPSK	1	1	17.18	17.15	17.13	18.00
	CP-OFDM 16QAM	1	1	17.53	17.51	17.45	18.00
	CP-OFDM 64QAM	1	1	17.29	17.35	17.23	18.00
	CP-OFDM 256QAM	1	1	16.97	17.03	16.93	18.00
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				632000/3480	633332/3500	634666/3520	
60MHz	DFT-s-OFDM BPSK	1	1	17.15	17.22	17.00	18.00
		1	160	17.30	17.32	17.33	18.00
		81	40	17.94	17.91	17.90	18.00
		162	0	17.80	17.84	17.73	18.00
	DFT-s-OFDM QPSK	1	1	17.11	17.15	17.06	18.00
		1	160	17.52	17.48	17.40	18.00
		81	40	17.91	17.90	17.86	18.00
		162	0	17.70	17.77	17.74	18.00
	DFT-s-OFDM 16QAM	1	1	16.73	16.74	16.77	18.00
		1	160	17.26	17.29	17.15	18.00
		81	40	17.88	17.83	17.82	18.00
	DFT-s-OFDM 64QAM	1	1	17.03	16.99	16.94	18.00
		1	160	17.27	17.31	17.20	18.00
		81	40	17.91	17.95	17.86	18.00
	DFT-s-OFDM 256QAM	1	1	17.74	17.70	17.55	18.00
		1	160	17.89	17.85	17.76	18.00
		81	40	17.83	17.97	17.83	18.00
	CP-OFDM QPSK	1	1	17.15	17.10	17.13	18.00
	CP-OFDM 16QAM	1	1	17.51	17.47	17.42	18.00
	CP-OFDM 64QAM	1	1	17.26	17.30	17.19	18.00
	CP-OFDM 256QAM	1	1	16.94	16.98	16.89	18.00
Bandwidth	Modulation	RB	offset	Channel/Frequency(MHz)			Tune-up

		allocation		632333/3485	633332/3500	634333/3515	
70MHz	DFT-s-OFDM BPSK	1	1	17.09	17.03	16.93	18.00
		1	187	17.29	17.32	17.29	18.00
		92	45	17.84	17.81	17.77	18.00
		180	0	17.74	17.72	17.64	18.00
	DFT-s-OFDM QPSK	1	1	17.05	17.03	16.95	18.00
		1	187	17.41	17.39	17.31	18.00
		92	45	17.91	17.86	17.73	18.00
		180	0	17.70	17.68	17.61	18.00
	DFT-s-OFDM 16QAM	1	1	16.73	16.71	16.69	18.00
		1	187	17.20	17.15	17.07	18.00
		92	46	17.80	17.80	17.76	18.00
	DFT-s-OFDM 64QAM	1	1	16.91	16.87	16.81	18.00
		1	187	17.21	17.19	17.11	18.00
		92	46	17.85	17.83	17.75	18.00
	DFT-s-OFDM 256QAM	1	1	17.58	17.53	17.42	18.00
		1	187	17.81	17.74	17.68	18.00
		92	46	17.91	17.86	17.79	18.00
	CP-OFDM QPSK	1	1	17.09	17.11	17.03	18.00
	CP-OFDM 16QAM	1	1	17.40	17.37	17.32	18.00
	CP-OFDM 64QAM	1	1	17.20	17.18	17.10	18.00
	CP-OFDM 256QAM	1	1	16.88	16.86	16.78	18.00
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				632666/3490	633332/3500	633998/3510	
80MHz	DFT-s-OFDM BPSK	1	1	17.18	17.24	17.04	18.00
		1	215	17.32	17.36	17.36	18.00
		108	54	17.97	17.96	17.94	18.00
		216	0	17.83	17.89	17.77	18.00
	DFT-s-OFDM QPSK	1	1	17.13	17.19	17.11	18.00
		1	215	17.54	17.50	17.44	18.00
		108	54	17.91	17.94	17.88	18.00
		216	0	17.70	17.81	17.77	18.00
	DFT-s-OFDM 16QAM	1	1	16.73	16.76	16.80	18.00
		1	215	17.29	17.31	17.19	18.00
		108	54	17.90	17.87	17.85	18.00
	DFT-s-OFDM 64QAM	1	1	17.06	17.04	16.98	18.00
		1	215	17.30	17.36	17.24	18.00
		108	54	17.93	17.99	17.91	18.00
	DFT-s-OFDM	1	1	17.77	17.70	17.58	18.00

	256QAM	1	215	17.92	17.83	17.79	18.00
		108	54	17.86	17.77	17.87	18.00
	CP-OFDM QPSK	1	1	17.17	17.14	17.12	18.00
	CP-OFDM 16QAM	1	1	17.54	17.52	17.46	18.00
	CP-OFDM 64QAM	1	1	17.29	17.35	17.23	18.00
	CP-OFDM 256QAM	1	1	16.96	17.02	16.94	18.00
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				633000/3495	633332/3500	633666/3505	
90MHz	DFT-s-OFDM BPSK	1	1	17.06	16.99	16.90	18.00
		1	243	17.28	17.28	17.27	18.00
		120	60	17.82	17.80	17.74	18.00
		243	0	17.71	17.67	17.60	18.00
	DFT-s-OFDM QPSK	1	1	17.03	16.99	16.92	18.00
		1	243	17.38	17.34	17.27	18.00
		120	60	17.88	17.81	17.69	18.00
		243	0	17.67	17.64	17.56	18.00
	DFT-s-OFDM 16QAM	1	1	16.70	16.69	16.65	18.00
		1	243	17.17	17.12	17.05	18.00
		120	60	17.77	17.76	17.73	18.00
	DFT-s-OFDM 64QAM	1	1	16.88	16.85	16.78	18.00
		1	243	17.18	17.14	17.07	18.00
		120	60	17.83	17.79	17.72	18.00
	DFT-s-OFDM 256QAM	1	1	17.56	17.49	17.37	18.00
		1	243	17.77	17.72	17.64	18.00
		120	60	17.85	17.80	17.73	18.00
	CP-OFDM QPSK	1	1	17.04	17.03	16.96	18.00
	CP-OFDM 16QAM	1	1	17.36	17.33	17.26	18.00
	CP-OFDM 64QAM	1	1	17.17	17.13	17.06	18.00
	CP-OFDM 256QAM	1	1	16.86	16.82	16.75	18.00
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				/	633332/3500	/	
100MHz	DFT-s-OFDM BPSK	1	1	/	16.85	/	18.00
		1	271	/	17.25	/	18.00
		135	67	/	17.68	/	18.00
		270	0	/	17.55	/	18.00

	DFT-s-OFDM QPSK	1	1	/	16.88	/	18.00
		1	271	/	**17.21**	/	18.00
		135	67	/	**17.68**	/	18.00
		270	0	/	**17.55**	/	18.00
	DFT-s-OFDM 16QAM	1	1	/	16.64	/	18.00
		1	271	/	17.00	/	18.00
		135	67	/	17.68	/	18.00
	DFT-s-OFDM 64QAM	1	1	/	16.71	/	18.00
		1	271	/	17.02	/	18.00
		135	67	/	17.68	/	18.00
	DFT-s-OFDM 256QAM	1	1	/	17.29	/	18.00
		1	271	/	17.58	/	18.00
		135	67	/	17.68	/	18.00
	CP-OFDM QPSK	1	1	/	16.91	/	18.00
	CP-OFDM 16QAM	1	1	/	17.19	/	18.00
	CP-OFDM 64QAM	1	1	/	17.01	/	18.00
	CP-OFDM 256QAM	1	1	/	16.71	/	18.00

NR n77subset-2(NSA)							
Receiver on-Main Ant2				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				647334/3710	656000/3840	664666/3970	
20MHz	DFT-s-OFDM BPSK	1	1	16.96	16.91	16.99	18.00
		1	49	16.64	16.62	16.68	18.00
		25	12	17.76	17.63	17.83	18.00
		50	0	17.54	17.48	17.60	18.00
	DFT-s-OFDM QPSK	1	1	16.96	16.89	17.04	18.00
		1	49	16.76	16.65	16.81	18.00
		25	12	17.69	17.66	17.81	18.00
		50	0	17.48	17.42	17.62	18.00
	DFT-s-OFDM 16QAM	1	1	16.67	16.57	16.76	18.00
		1	49	16.50	16.41	16.52	18.00
		25	12	17.74	17.64	17.76	18.00
	DFT-s-OFDM 64QAM	1	1	16.81	16.67	16.86	18.00
		1	49	16.56	16.50	16.62	18.00
		25	12	17.72	17.65	17.80	18.00
	DFT-s-OFDM 256QAM	1	1	17.42	17.28	17.50	18.00
		1	49	17.16	16.99	17.19	18.00
		25	12	17.77	17.68	17.80	18.00

	CP-OFDM QPSK	1	1	17.00	16.92	17.08	18.00
	CP-OFDM 16QAM	1	1	17.29	17.16	17.36	18.00
	CP-OFDM 64QAM	1	1	17.05	16.99	17.11	18.00
	CP-OFDM 256QAM	1	1	16.79	16.72	16.87	18.00
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				647667/3715	656000/3840	664333/3965	
30MHz	DFT-s-OFDM BPSK	1	1	16.97	16.95	17.01	18.00
		1	76	16.66	16.63	16.71	18.00
		36	18	17.79	17.68	17.87	18.00
		75	0	17.56	17.52	17.63	18.00
	DFT-s-OFDM QPSK	1	1	16.99	16.94	17.08	18.00
		1	76	16.79	16.68	16.85	18.00
		36	18	17.71	17.70	17.86	18.00
		75	0	17.50	17.44	17.64	18.00
	DFT-s-OFDM 16QAM	1	1	16.69	16.60	16.78	18.00
		1	76	16.52	16.45	16.55	18.00
		36	18	17.77	17.66	17.79	18.00
	DFT-s-OFDM 64QAM	1	1	16.84	16.72	16.90	18.00
		1	76	16.58	16.54	16.65	18.00
		36	18	17.75	17.70	17.84	18.00
	DFT-s-OFDM 256QAM	1	1	17.47	17.30	17.52	18.00
		1	76	17.18	17.02	17.21	18.00
		36	18	17.76	17.69	17.79	18.00
	CP-OFDM QPSK	1	1	17.01	16.90	17.07	18.00
	CP-OFDM 16QAM	1	1	17.31	17.19	17.37	18.00
	CP-OFDM 64QAM	1	1	17.07	17.03	17.14	18.00
	CP-OFDM 256QAM	1	1	16.82	16.77	16.91	18.00
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				648000/3720	656000/3840	664000/3960	
40MHz	DFT-s-OFDM BPSK	1	1	16.93	16.87	16.96	18.00
		1	104	16.63	16.58	16.66	18.00
		50	25	17.74	17.62	17.80	18.00
		100	0	17.51	17.43	17.56	18.00
	DFT-s-OFDM QPSK	1	1	16.94	16.85	17.01	18.00
		1	104	16.73	16.60	16.77	18.00

		50	25	17.66	17.61	17.77	18.00
		100	0	17.45	17.38	17.57	18.00
	DFT-s-OFDM 16QAM	1	1	16.64	16.55	16.72	18.00
		1	104	16.47	16.38	16.50	18.00
		50	25	17.71	17.60	17.73	18.00
	DFT-s-OFDM 64QAM	1	1	16.78	16.65	16.83	18.00
		1	104	16.53	16.45	16.58	18.00
		50	25	17.70	17.61	17.77	18.00
	DFT-s-OFDM 256QAM	1	1	17.40	17.24	17.45	18.00
		1	104	17.12	16.97	17.15	18.00
		50	25	17.71	17.62	17.74	18.00
	CP-OFDM QPSK	1	1	16.95	16.84	17.01	18.00
	CP-OFDM 16QAM	1	1	17.25	17.12	17.30	18.00
	CP-OFDM 64QAM	1	1	17.02	16.94	17.07	18.00
	CP-OFDM 256QAM	1	1	16.77	16.68	16.84	18.00
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				648333/3725	656000/3840	663666/3955	
50MHz	DFT-s-OFDM BPSK	1	1	16.98	16.98	17.01	18.00
		1	131	16.64	16.62	16.69	18.00
		64	32	17.79	17.65	17.87	18.00
		128	0	17.56	17.52	17.63	18.00
	DFT-s-OFDM QPSK	1	1	16.98	16.93	17.07	18.00
		1	131	16.80	16.69	16.84	18.00
		64	32	17.70	17.73	17.86	18.00
		128	0	17.49	17.45	17.67	18.00
	DFT-s-OFDM 16QAM	1	1	16.68	16.58	16.79	18.00
		1	131	16.52	16.46	16.54	18.00
		64	32	17.77	17.65	17.78	18.00
	DFT-s-OFDM 64QAM	1	1	16.85	16.70	16.90	18.00
		1	131	16.58	16.54	16.65	18.00
		64	32	17.74	17.69	17.83	18.00
	DFT-s-OFDM 256QAM	1	1	17.47	17.35	17.55	18.00
		1	131	17.19	17.04	17.22	18.00
		64	32	17.83	17.73	17.82	18.00
	CP-OFDM QPSK	1	1	17.03	16.93	17.14	18.00
	CP-OFDM 16QAM	1	1	17.33	17.19	17.40	18.00
	CP-OFDM	1	1	17.07	17.03	17.14	18.00

	64QAM						
	CP-OFDM 256QAM	1	1	16.81	16.76	16.90	18.00
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				648666/3730	656000/3840	663334/3950	
60MHz	DFT-s-OFDM BPSK	1	1	16.95	16.94	16.98	18.00
		1	160	16.63	16.58	16.67	18.00
		81	40	17.77	17.64	17.84	18.00
		162	0	17.53	17.47	17.59	18.00
	DFT-s-OFDM QPSK	1	1	16.96	16.89	17.04	18.00
		1	160	16.77	16.64	16.80	18.00
		81	40	17.67	17.68	17.82	18.00
		162	0	17.46	17.41	17.62	18.00
	DFT-s-OFDM 16QAM	1	1	16.65	16.56	16.75	18.00
		1	160	16.49	16.43	16.52	18.00
		81	40	17.74	17.61	17.75	18.00
	DFT-s-OFDM 64QAM	1	1	16.82	16.68	16.87	18.00
		1	160	16.55	16.49	16.61	18.00
		81	40	17.72	17.65	17.80	18.00
	DFT-s-OFDM 256QAM	1	1	17.45	17.31	17.50	18.00
		1	160	17.15	17.02	17.18	18.00
		81	40	17.77	17.67	17.76	18.00
	CP-OFDM QPSK	1	1	16.98	16.85	17.07	18.00
	CP-OFDM 16QAM	1	1	17.29	17.15	17.34	18.00
	CP-OFDM 64QAM	1	1	17.04	16.98	17.10	18.00
	CP-OFDM 256QAM	1	1	16.79	16.72	16.87	18.00
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				649000/3735	656000/3840	663000/3745	
70MHz	DFT-s-OFDM BPSK	1	1	16.92	16.86	16.95	18.00
		1	187	16.64	16.59	16.67	18.00
		92	45	17.73	17.61	17.79	18.00
		180	0	17.51	17.43	17.56	18.00
	DFT-s-OFDM QPSK	1	1	16.95	16.86	17.00	18.00
		1	187	16.73	16.62	16.78	18.00
		92	45	17.70	17.62	17.79	18.00
		180	0	17.49	17.37	17.56	18.00
	DFT-s-OFDM 16QAM	1	1	16.68	16.57	16.72	18.00
		1	187	16.47	16.38	16.49	18.00
		92	46	17.72	17.61	17.74	18.00

	DFT-s-OFDM 64QAM	1	1	16.77	16.64	16.82	18.00
		1	187	16.53	16.45	16.58	18.00
		92	46	17.71	17.62	17.76	18.00
	DFT-s-OFDM 256QAM	1	1	17.39	17.23	17.44	18.00
		1	187	17.12	16.99	17.15	18.00
		92	46	17.71	17.62	17.73	18.00
	CP-OFDM QPSK	1	1	16.96	16.85	17.02	18.00
	CP-OFDM 16QAM	1	1	17.24	17.11	17.29	18.00
	CP-OFDM 64QAM	1	1	17.02	16.94	17.07	18.00
	CP-OFDM 256QAM	1	1	16.78	16.69	16.83	18.00
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				649334/3740	656000/3840	662666/3940	
80MHz	DFT-s-OFDM BPSK	1	1	17.00	17.03	17.04	18.00
		1	215	16.65	16.62	16.71	18.00
		108	54	17.83	17.71	17.92	18.00
		216	0	17.58	17.56	17.66	18.00
	DFT-s-OFDM QPSK	1	1	17.00	16.97	17.12	18.00
		1	215	16.83	16.70	16.87	18.00
		108	54	17.68	17.76	17.89	18.00
		216	0	17.47	17.48	17.70	18.00
	DFT-s-OFDM 16QAM	1	1	16.66	16.59	16.81	18.00
		1	215	16.54	16.50	16.58	18.00
		108	54	17.79	17.66	17.80	18.00
	DFT-s-OFDM 64QAM	1	1	16.89	16.76	16.95	18.00
		1	215	16.60	16.58	16.68	18.00
		108	54	17.76	17.73	17.88	18.00
	DFT-s-OFDM 256QAM	1	1	17.53	17.38	17.58	18.00
		1	215	17.21	17.05	17.24	18.00
		108	54	17.82	17.74	17.82	18.00
	CP-OFDM QPSK	1	1	17.03	16.90	17.12	18.00
	CP-OFDM 16QAM	1	1	17.36	17.23	17.42	18.00
	CP-OFDM 64QAM	1	1	17.09	17.07	17.17	18.00
	CP-OFDM 256QAM	1	1	16.83	16.80	16.95	18.00

Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				649666/3745	656000/3840	662333/3935	
90MHz	DFT-s-OFDM BPSK	1	1	16.91	16.82	16.93	18.00
		1	243	16.62	16.58	16.64	18.00
		120	60	17.70	17.56	17.75	18.00
		243	0	17.49	17.39	17.53	18.00
	DFT-s-OFDM QPSK	1	1	16.92	16.81	16.96	18.00
		1	243	16.70	16.59	16.74	18.00
		120	60	17.68	17.58	17.74	18.00
		243	0	17.47	17.35	17.54	18.00
	DFT-s-OFDM 16QAM	1	1	16.66	16.54	16.70	18.00
		1	243	16.45	16.34	16.46	18.00
		120	60	17.69	17.59	17.71	18.00
	DFT-s-OFDM 64QAM	1	1	16.74	16.59	16.78	18.00
		1	243	16.51	16.41	16.55	18.00
		120	60	17.68	17.57	17.72	18.00
	DFT-s-OFDM 256QAM	1	1	17.34	17.21	17.42	18.00
		1	243	17.10	16.96	17.13	18.00
		120	60	17.72	17.61	17.74	18.00
	CP-OFDM QPSK	1	1	16.95	16.87	17.03	18.00
	CP-OFDM 16QAM	1	1	17.22	17.08	17.28	18.00
	CP-OFDM 64QAM	1	1	17.00	16.90	17.04	18.00
	CP-OFDM 256QAM	1	1	16.75	16.64	16.79	18.00
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				650000/3750	656000/3840	662000/3930	
100MHz	DFT-s-OFDM BPSK	1	1	16.88	16.78	16.90	18.00
		1	271	16.61	16.54	16.62	18.00
		135	67	17.68	17.55	17.72	18.00
		270	0	17.46	17.34	17.49	18.00
	DFT-s-OFDM QPSK	1	1	**16.90**	**16.77**	**16.93**	18.00
		1	271	16.67	16.54	16.70	18.00
		135	67	17.65	17.53	**17.70**	18.00
		270	0	17.44	17.31	**17.49**	18.00
	DFT-s-OFDM 16QAM	1	1	16.63	16.52	16.66	18.00
		1	271	16.42	16.31	16.44	18.00
		135	67	17.66	17.55	17.68	18.00
	DFT-s-OFDM 64QAM	1	1	16.71	16.57	16.75	18.00
		1	271	16.48	16.36	16.51	18.00
		135	67	17.66	17.53	17.69	18.00

	DFT-s-OFDM 256QAM	1	1	17.32	17.17	17.37	18.00
		1	271	17.06	16.94	17.09	18.00
		135	67	17.66	17.55	17.68	18.00
	CP-OFDM QPSK	1	1	16.90	16.79	16.96	18.00
	CP-OFDM 16QAM	1	1	17.18	17.04	17.22	18.00
	CP-OFDM 64QAM	1	1	16.97	16.85	17.00	18.00
	CP-OFDM 256QAM	1	1	16.73	16.60	16.76	18.00

NR n77subset-1(NSA)							
Receiver off-Main Ant2				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				630666/3460	633332/3500	635998/3540	
20MHz	DFT-s-OFDM BPSK	1	1	18.24	18.23	18.11	19.00
		1	49	18.36	18.41	18.37	19.00
		25	12	19.00	18.96	18.94	19.00
		50	0	18.91	18.93	18.83	19.00
	DFT-s-OFDM QPSK	1	1	18.21	18.24	18.17	19.00
		1	49	18.58	18.54	18.48	19.00
		25	12	18.95	18.97	18.94	19.00
		50	0	18.84	18.84	18.86	19.00
	DFT-s-OFDM 16QAM	1	1	17.88	17.84	17.89	19.00
		1	49	18.30	18.27	18.18	19.00
		25	12	18.96	18.93	18.87	19.00
	DFT-s-OFDM 64QAM	1	1	18.10	18.05	17.99	19.00
		1	49	18.35	18.37	18.27	19.00
		25	12	18.98	18.76	18.94	19.00
	DFT-s-OFDM 256QAM	1	1	18.74	18.62	18.57	19.00
		1	49	18.95	18.80	18.80	19.00
		25	12	18.77	18.90	18.91	19.00
	CP-OFDM QPSK	1	1	18.26	18.21	18.15	19.00
	CP-OFDM 16QAM	1	1	18.43	18.36	18.31	19.00
	CP-OFDM 64QAM	1	1	18.34	18.36	18.26	19.00
	CP-OFDM 256QAM	1	1	18.03	18.06	17.99	19.00
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				631000/3465	633332/3500	635666/3535	

30MHz	DFT-s-OFDM BPSK	1	1	18.21	18.19	18.08	19.00
		1	76	18.35	18.37	18.35	19.00
		36	18	18.98	18.95	18.91	19.00
		75	0	18.88	18.88	18.79	19.00
	DFT-s-OFDM QPSK	1	1	18.19	18.20	18.14	19.00
		1	76	18.55	18.49	18.44	19.00
		36	18	18.92	18.92	18.90	19.00
		75	0	18.81	18.80	18.81	19.00
	DFT-s-OFDM 16QAM	1	1	17.85	17.82	17.85	19.00
		1	76	18.27	18.24	18.16	19.00
		36	18	18.93	18.89	18.84	19.00
	DFT-s-OFDM 64QAM	1	1	18.07	18.03	17.96	19.00
		1	76	18.32	18.32	18.23	19.00
		36	18	18.96	18.97	18.91	19.00
	DFT-s-OFDM 256QAM	1	1	18.72	18.58	18.52	19.00
		1	76	18.91	18.78	18.76	19.00
		36	18	18.90	18.93	18.85	19.00
	CP-OFDM QPSK	1	1	18.21	18.13	18.08	19.00
	CP-OFDM 16QAM	1	1	18.39	18.32	18.25	19.00
	CP-OFDM 64QAM	1	1	18.31	18.31	18.22	19.00
	CP-OFDM 256QAM	1	1	18.01	18.02	17.96	19.00
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				631332/3470	633332/3500	635332/3530	
40MHz	DFT-s-OFDM BPSK	1	1	18.18	18.17	18.04	19.00
		1	104	18.33	18.33	18.32	19.00
		50	25	18.95	18.90	18.87	19.00
		100	0	18.85	18.83	18.75	19.00
	DFT-s-OFDM QPSK	1	1	18.17	18.16	18.09	19.00
		1	104	18.53	18.47	18.40	19.00
		50	25	18.92	18.91	18.88	19.00
		100	0	18.81	18.76	18.78	19.00
	DFT-s-OFDM 16QAM	1	1	17.85	17.80	17.82	19.00
		1	104	18.24	18.22	18.12	19.00
		50	25	18.91	18.85	18.81	19.00
	DFT-s-OFDM 64QAM	1	1	18.04	17.98	17.92	19.00
		1	104	18.29	18.27	18.19	19.00
		50	25	18.94	18.93	18.86	19.00
	DFT-s-OFDM 256QAM	1	1	18.69	18.58	18.49	19.00
		1	104	18.88	18.80	18.73	19.00

		50	25	18.68	18.91	18.81	19.00
	CP-OFDM QPSK	1	1	18.19	18.09	18.09	19.00
	CP-OFDM 16QAM	1	1	18.36	18.27	18.21	19.00
	CP-OFDM 64QAM	1	1	18.28	18.26	18.18	19.00
	CP-OFDM 256QAM	1	1	17.99	17.98	17.91	19.00
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				631666/3475	633332/3500	634998/3525	
50MHz	DFT-s-OFDM BPSK	1	1	18.20	18.18	18.07	19.00
		1	131	18.36	18.38	18.36	19.00
		64	32	18.97	18.94	18.90	19.00
		128	0	18.88	18.88	18.79	19.00
	DFT-s-OFDM QPSK	1	1	18.20	18.21	18.13	19.00
		1	131	18.55	18.51	18.45	19.00
		64	32	18.96	18.93	18.92	19.00
		128	0	18.85	18.79	18.80	19.00
	DFT-s-OFDM 16QAM	1	1	17.89	17.84	17.85	19.00
		1	131	18.27	18.24	18.15	19.00
		64	32	18.94	18.90	18.85	19.00
	DFT-s-OFDM 64QAM	1	1	18.06	18.02	17.95	19.00
		1	131	18.32	18.32	18.23	19.00
		64	32	18.97	18.98	18.90	19.00
	DFT-s-OFDM 256QAM	1	1	18.71	18.57	18.51	19.00
		1	131	18.91	18.80	18.76	19.00
		64	32	18.82	18.93	18.84	19.00
	CP-OFDM QPSK	1	1	18.22	18.14	18.09	19.00
	CP-OFDM 16QAM	1	1	18.38	18.31	18.24	19.00
	CP-OFDM 64QAM	1	1	18.31	18.31	18.22	19.00
	CP-OFDM 256QAM	1	1	18.02	18.03	17.95	19.00
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				632000/3480	633332/3500	634666/3520	
60MHz	DFT-s-OFDM BPSK	1	1	18.16	18.10	18.02	19.00
		1	160	18.33	18.33	18.31	19.00
		81	40	18.92	18.88	18.83	19.00
		162	0	18.83	18.79	18.72	19.00
	DFT-s-OFDM	1	1	18.15	18.12	18.06	19.00

	QPSK	1	160	18.49	18.43	18.37	19.00
		81	40	18.91	18.84	18.83	19.00
		162	0	18.80	18.73	18.73	19.00
	DFT-s-OFDM 16QAM	1	1	17.84	17.79	17.79	19.00
		1	160	18.22	18.17	18.10	19.00
		81	40	18.88	18.84	18.79	19.00
	DFT-s-OFDM 64QAM	1	1	18.00	17.95	17.88	19.00
		1	160	18.27	18.23	18.16	19.00
		81	40	18.92	18.89	18.83	19.00
	DFT-s-OFDM 256QAM	1	1	18.64	18.51	18.44	19.00
		1	160	18.85	18.75	18.70	19.00
		81	40	18.95	18.86	18.79	19.00
	CP-OFDM QPSK	1	1	18.16	18.08	18.03	19.00
	CP-OFDM 16QAM	1	1	18.32	18.24	18.17	19.00
	CP-OFDM 64QAM	1	1	18.26	18.22	18.15	19.00
	CP-OFDM 256QAM	1	1	17.97	17.94	17.88	19.00
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				632333/3485	633332/3500	634333/3515	
70MHz	DFT-s-OFDM BPSK	1	1	18.19	18.14	18.05	19.00
		1	187	18.34	18.37	18.33	19.00
		92	45	18.94	18.89	18.86	19.00
		180	0	18.86	18.84	18.76	19.00
	DFT-s-OFDM QPSK	1	1	18.17	18.16	18.09	19.00
		1	187	18.52	18.48	18.41	19.00
		92	45	18.94	18.89	18.87	19.00
		180	0	18.83	18.77	18.78	19.00
	DFT-s-OFDM 16QAM	1	1	17.87	17.81	17.83	19.00
		1	187	18.25	18.20	18.12	19.00
		92	46	18.91	18.88	18.82	19.00
	DFT-s-OFDM 64QAM	1	1	18.03	17.97	17.91	19.00
		1	187	18.30	18.28	18.20	19.00
		92	46	18.94	18.93	18.86	19.00
	DFT-s-OFDM 256QAM	1	1	18.66	18.55	18.49	19.00
		1	187	18.89	18.77	18.74	19.00
		92	46	18.70	18.92	18.85	19.00
	CP-OFDM QPSK	1	1	18.21	18.16	18.10	19.00
	CP-OFDM 16QAM	1	1	18.36	18.28	18.23	19.00

	CP-OFDM 64QAM	1	1	18.29	18.27	18.19	19.00
	CP-OFDM 256QAM	1	1	17.99	17.98	17.91	19.00
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				632666/3490	633332/3500	633998/3510	
80MHz	DFT-s-OFDM BPSK	1	1	18.15	18.06	18.00	19.00
		1	215	18.31	18.32	18.28	19.00
		108	54	18.89	18.83	18.79	19.00
		216	0	18.81	18.75	18.69	19.00
	DFT-s-OFDM QPSK	1	1	18.12	18.07	18.02	19.00
		1	215	18.46	18.40	18.33	19.00
		108	54	18.89	18.80	18.78	19.00
		216	0	18.78	18.71	18.71	19.00
	DFT-s-OFDM 16QAM	1	1	17.82	17.76	17.77	19.00
		1	215	18.20	18.13	18.07	19.00
		108	54	18.85	18.82	18.76	19.00
	DFT-s-OFDM 64QAM	1	1	17.97	17.90	17.84	19.00
		1	215	18.25	18.19	18.13	19.00
		108	54	18.89	18.84	18.79	19.00
	DFT-s-OFDM 256QAM	1	1	18.59	18.49	18.42	19.00
		1	215	18.83	18.72	18.68	19.00
		108	54	18.96	18.85	18.80	19.00
	CP-OFDM QPSK	1	1	18.15	18.10	18.04	19.00
	CP-OFDM 16QAM	1	1	18.30	18.21	18.16	19.00
	CP-OFDM 64QAM	1	1	18.24	18.18	18.12	19.00
	CP-OFDM 256QAM	1	1	17.94	17.89	17.84	19.00
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				633000/3495	633332/3500	633666/3505	
90MHz	DFT-s-OFDM BPSK	1	1	18.12	18.02	17.97	19.00
		1	243	18.30	18.28	18.26	19.00
		120	60	18.87	18.82	18.76	19.00
		243	0	18.78	18.70	18.65	19.00
	DFT-s-OFDM QPSK	1	1	18.10	18.03	17.99	19.00
		1	243	18.43	18.35	18.29	19.00
		120	60	18.86	18.75	18.74	19.00
		243	0	18.75	18.67	18.66	19.00
	DFT-s-OFDM 16QAM	1	1	17.79	17.74	17.73	19.00
		1	243	18.17	18.10	18.05	19.00

		120	60	18.82	18.78	18.73	19.00
	DFT-s-OFDM 64QAM	1	1	17.94	17.88	17.81	19.00
		1	243	18.22	18.14	18.09	19.00
		120	60	18.87	18.80	18.76	19.00
	DFT-s-OFDM 256QAM	1	1	18.57	18.45	18.37	19.00
		1	243	18.79	18.70	18.64	19.00
		120	60	18.90	18.79	18.74	19.00
	CP-OFDM QPSK	1	1	18.10	18.02	17.97	19.00
	CP-OFDM 16QAM	1	1	18.26	18.17	18.10	19.00
	CP-OFDM 64QAM	1	1	18.21	18.13	18.08	19.00
	CP-OFDM 256QAM	1	1	17.92	17.85	17.81	19.00
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				/	633332/3500	/	
100MHz	DFT-s-OFDM BPSK	1	1	/	17.91	/	19.00
		1	271	/	18.22	/	19.00
		135	67	/	18.68	/	19.00
		270	0	/	18.58	/	19.00
	DFT-s-OFDM QPSK	1	1	/	17.91	/	19.00
		1	271	/	**18.22**	/	19.00
		135	67	/	**18.67**	/	19.00
		270	0	/	**18.58**	/	19.00
	DFT-s-OFDM 16QAM	1	1	/	17.67	/	19.00
		1	271	/	17.99	/	19.00
		135	67	/	18.68	/	19.00
	DFT-s-OFDM 64QAM	1	1	/	17.73	/	19.00
		1	271	/	18.02	/	19.00
		135	67	/	18.68	/	19.00
	DFT-s-OFDM 256QAM	1	1	/	18.29	/	19.00
		1	271	/	18.58	/	19.00
		135	67	/	18.68	/	19.00
	CP-OFDM QPSK	1	1	/	17.92	/	19.00
	CP-OFDM 16QAM	1	1	/	18.02	/	19.00
	CP-OFDM 64QAM	1	1	/	18.01	/	19.00
	CP-OFDM 256QAM	1	1	/	17.73	/	19.00

NR n77subset-2(NSA)							
Receiver off-Main Ant2				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				647334/3710	656000/3840	664666/3970	
20MHz	DFT-s-OFDM BPSK	1	1	18.12	18.06	18.05	19.00
		1	49	18.24	18.22	18.21	19.00
		25	12	18.71	18.60	18.65	19.00
		50	0	18.78	18.56	18.77	19.00
	DFT-s-OFDM QPSK	1	1	18.09	18.04	18.05	19.00
		1	49	18.37	18.25	18.28	19.00
		25	12	18.85	18.79	18.80	19.00
		50	0	18.77	18.71	18.76	19.00
	DFT-s-OFDM 16QAM	1	1	17.83	17.72	17.80	19.00
		1	49	18.89	18.80	18.81	19.00
		25	12	18.78	18.67	18.69	19.00
	DFT-s-OFDM 64QAM	1	1	17.95	17.82	17.86	19.00
		1	49	18.14	18.07	18.07	19.00
		25	12	18.32	18.27	18.28	19.00
	DFT-s-OFDM 256QAM	1	1	18.52	18.42	18.46	19.00
		1	49	18.74	18.55	18.64	19.00
		25	12	18.70	18.55	18.60	19.00
	CP-OFDM QPSK	1	1	18.20	18.07	18.11	19.00
	CP-OFDM 16QAM	1	1	18.45	18.31	18.37	19.00
	CP-OFDM 64QAM	1	1	18.21	18.14	18.14	19.00
	CP-OFDM 256QAM	1	1	17.90	17.85	17.86	19.00
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				647667/3715	656000/3840	664333/3965	
30MHz	DFT-s-OFDM BPSK	1	1	18.13	18.10	18.07	19.00
		1	76	18.26	18.23	18.24	19.00
		36	18	18.74	18.65	18.69	19.00
		75	0	18.80	18.60	18.80	19.00
	DFT-s-OFDM QPSK	1	1	18.12	18.09	18.09	19.00
		1	76	18.40	18.28	18.32	19.00
		36	18	18.87	18.83	18.85	19.00
		75	0	18.79	18.73	18.78	19.00
	DFT-s-OFDM 16QAM	1	1	17.85	17.75	17.82	19.00
		1	76	18.91	18.84	18.84	19.00
		36	18	18.81	18.69	18.72	19.00
	DFT-s-OFDM	1	1	17.98	17.87	17.90	19.00

	64QAM	1	76	18.16	18.11	18.10	19.00
		36	18	18.35	18.32	18.32	19.00
	DFT-s-OFDM 256QAM	1	1	18.57	18.44	18.48	19.00
		1	76	18.76	18.58	18.66	19.00
		36	18	18.69	18.56	18.59	19.00
	CP-OFDM QPSK	1	1	18.21	18.05	18.10	19.00
	CP-OFDM 16QAM	1	1	18.47	18.34	18.38	19.00
	CP-OFDM 64QAM	1	1	18.23	18.18	18.17	19.00
	CP-OFDM 256QAM	1	1	17.93	17.90	17.90	19.00
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				648000/3720	656000/3840	664000/3960	
40MHz	DFT-s-OFDM BPSK	1	1	18.09	18.02	18.02	19.00
		1	104	18.23	18.18	18.19	19.00
		50	25	18.69	18.59	18.62	19.00
		100	0	18.75	18.51	18.73	19.00
	DFT-s-OFDM QPSK	1	1	18.07	18.00	18.02	19.00
		1	104	18.34	18.20	18.24	19.00
		50	25	18.82	18.74	18.76	19.00
		100	0	18.74	18.67	18.71	19.00
	DFT-s-OFDM 16QAM	1	1	17.80	17.70	17.76	19.00
		1	104	18.86	18.77	18.79	19.00
		50	25	18.75	18.63	18.66	19.00
	DFT-s-OFDM 64QAM	1	1	17.92	17.80	17.83	19.00
		1	104	18.11	18.02	18.03	19.00
		50	25	18.30	18.23	18.25	19.00
	DFT-s-OFDM 256QAM	1	1	18.50	18.38	18.41	19.00
		1	104	18.70	18.53	18.60	19.00
		50	25	18.64	18.49	18.54	19.00
	CP-OFDM QPSK	1	1	18.15	17.99	18.04	19.00
	CP-OFDM 16QAM	1	1	18.41	18.27	18.31	19.00
	CP-OFDM 64QAM	1	1	18.18	18.09	18.10	19.00
	CP-OFDM 256QAM	1	1	17.88	17.81	17.83	19.00
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				648333/3725	656000/3840	663666/3955	
50MHz	DFT-s-OFDM	1	1	18.06	18.00	17.98	19.00

	BPSK	1	131	18.21	18.14	18.16	19.00
		64	32	18.66	18.54	18.58	19.00
		128	0	18.72	18.46	18.69	19.00
	DFT-s-OFDM QPSK	1	1	18.05	17.96	17.97	19.00
		1	131	18.32	18.18	18.20	19.00
		64	32	18.82	18.73	18.74	19.00
		128	0	18.74	18.63	18.68	19.00
	DFT-s-OFDM 16QAM	1	1	17.80	17.68	17.73	19.00
		1	131	18.83	18.75	18.75	19.00
		64	32	18.73	18.59	18.63	19.00
	DFT-s-OFDM 64QAM	1	1	17.89	17.75	17.79	19.00
		1	131	18.08	17.97	17.99	19.00
		64	32	18.28	18.19	18.20	19.00
	DFT-s-OFDM 256QAM	1	1	18.47	18.38	18.38	19.00
		1	131	18.67	18.55	18.57	19.00
		64	32	18.65	18.47	18.50	19.00
	CP-OFDM QPSK	1	1	18.13	17.95	18.05	19.00
	CP-OFDM 16QAM	1	1	18.38	18.22	18.27	19.00
	CP-OFDM 64QAM	1	1	18.15	18.04	18.06	19.00
	CP-OFDM 256QAM	1	1	17.86	17.77	17.78	19.00
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				648666/3730	656000/3840	663334/3950	
60MHz	DFT-s-OFDM BPSK	1	1	18.11	18.09	18.04	19.00
		1	160	18.23	18.18	18.20	19.00
		81	40	18.72	18.61	18.66	19.00
		162	0	18.77	18.55	18.76	19.00
	DFT-s-OFDM QPSK	1	1	18.09	18.04	18.05	19.00
		1	160	18.38	18.24	18.27	19.00
		81	40	18.83	18.81	18.81	19.00
		162	0	18.75	18.70	18.76	19.00
	DFT-s-OFDM 16QAM	1	1	17.81	17.71	17.79	19.00
		1	160	18.88	18.82	18.81	19.00
		81	40	18.78	18.64	18.68	19.00
	DFT-s-OFDM 64QAM	1	1	17.96	17.83	17.87	19.00
		1	160	18.13	18.06	18.06	19.00
		81	40	18.32	18.27	18.28	19.00
	DFT-s-OFDM 256QAM	1	1	18.55	18.45	18.46	19.00
		1	160	18.73	18.58	18.63	19.00
		81	40	18.70	18.54	18.56	19.00

	CP-OFDM QPSK	1	1	18.18	18.00	18.10	19.00
	CP-OFDM 16QAM	1	1	18.45	18.30	18.35	19.00
	CP-OFDM 64QAM	1	1	18.20	18.13	18.13	19.00
	CP-OFDM 256QAM	1	1	17.90	17.85	17.86	19.00
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				649000/3735	656000/3840	663000/3745	
70MHz	DFT-s-OFDM BPSK	1	1	18.08	18.01	18.01	19.00
		1	187	18.24	18.19	18.20	19.00
		92	45	18.68	18.58	18.61	19.00
		180	0	18.75	18.51	18.73	19.00
	DFT-s-OFDM QPSK	1	1	18.08	18.01	18.01	19.00
		1	187	18.34	18.22	18.25	19.00
		92	45	18.86	18.75	18.78	19.00
		180	0	18.78	18.66	18.70	19.00
	DFT-s-OFDM 16QAM	1	1	17.84	17.72	17.76	19.00
		1	187	18.86	18.77	18.78	19.00
		92	46	18.76	18.64	18.67	19.00
	DFT-s-OFDM 64QAM	1	1	17.91	17.79	17.82	19.00
		1	187	18.11	18.02	18.03	19.00
		92	46	18.31	18.24	18.24	19.00
	DFT-s-OFDM 256QAM	1	1	18.49	18.37	18.40	19.00
		1	187	18.70	18.55	18.60	19.00
		92	46	18.64	18.49	18.53	19.00
	CP-OFDM QPSK	1	1	18.16	18.00	18.05	19.00
	CP-OFDM 16QAM	1	1	18.40	18.26	18.30	19.00
	CP-OFDM 64QAM	1	1	18.18	18.09	18.10	19.00
	CP-OFDM 256QAM	1	1	17.89	17.82	17.82	19.00
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				649334/3740	656000/3840	662666/3940	
80MHz	DFT-s-OFDM BPSK	1	1	18.14	18.11	18.08	19.00
		1	215	18.25	18.22	18.23	19.00
		108	54	18.75	18.66	18.70	19.00
		216	0	18.80	18.60	18.80	19.00
	DFT-s-OFDM QPSK	1	1	18.11	18.08	18.10	19.00
		1	215	18.40	18.26	18.31	19.00

		108	54	18.83	18.82	18.83	19.00
		216	0	18.75	18.74	18.79	19.00
	DFT-s-OFDM 16QAM	1	1	17.81	17.73	17.82	19.00
		1	215	18.91	18.84	18.85	19.00
		108	54	18.80	18.68	18.71	19.00
	DFT-s-OFDM 64QAM	1	1	17.99	17.88	17.91	19.00
		1	215	18.16	18.11	18.10	19.00
		108	54	18.34	18.31	18.33	19.00
	DFT-s-OFDM 256QAM	1	1	18.58	18.45	18.49	19.00
		1	215	18.76	18.56	18.66	19.00
		108	54	18.69	18.56	18.60	19.00
	CP-OFDM QPSK	1	1	18.20	18.04	18.09	19.00
	CP-OFDM 16QAM	1	1	18.48	18.35	18.39	19.00
	CP-OFDM 64QAM	1	1	18.23	18.18	18.17	19.00
	CP-OFDM 256QAM	1	1	17.92	17.89	17.91	19.00
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				649666/3745	656000/3840	662333/3935	
90MHz	DFT-s-OFDM BPSK	1	1	18.07	17.97	17.99	19.00
		1	243	18.22	18.18	18.17	19.00
		120	60	18.65	18.53	18.57	19.00
		243	0	18.73	18.47	18.70	19.00
	DFT-s-OFDM QPSK	1	1	18.05	17.96	17.97	19.00
		1	243	18.31	18.19	18.21	19.00
		120	60	18.84	18.71	18.73	19.00
		243	0	18.76	18.64	18.68	19.00
	DFT-s-OFDM 16QAM	1	1	17.82	17.69	17.74	19.00
		1	243	18.84	18.73	18.75	19.00
		120	60	18.73	18.62	18.64	19.00
	DFT-s-OFDM 64QAM	1	1	17.88	17.74	17.78	19.00
		1	243	18.09	17.98	18.00	19.00
		120	60	18.28	18.19	18.20	19.00
	DFT-s-OFDM 256QAM	1	1	18.44	18.35	18.38	19.00
		1	243	18.68	18.52	18.58	19.00
		120	60	18.65	18.48	18.54	19.00
	CP-OFDM QPSK	1	1	18.15	18.02	18.06	19.00
	CP-OFDM 16QAM	1	1	18.38	18.23	18.29	19.00
	CP-OFDM	1	1	18.16	18.05	18.07	19.00

	64QAM						
	CP-OFDM 256QAM	1	1	17.86	17.77	17.78	19.00

Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				650000/3750	656000/3840	662000/3930	
100MHz	DFT-s-OFDM BPSK	1	1	18.04	17.93	17.96	19.00
		1	271	18.21	18.14	18.15	19.00
		135	67	18.63	18.52	18.54	19.00
		270	0	18.70	18.42	18.66	19.00
	DFT-s-OFDM QPSK	1	1	18.03	17.92	17.94	19.00
		1	271	**18.28**	**18.14**	**18.17**	19.00
		135	67	**18.81**	18.66	18.69	19.00
		270	0	**18.73**	18.60	18.63	19.00
	DFT-s-OFDM 16QAM	1	1	17.79	17.67	17.70	19.00
		1	271	18.81	18.70	18.73	19.00
		135	67	18.70	18.58	18.61	19.00
	DFT-s-OFDM 64QAM	1	1	17.85	17.72	17.75	19.00
		1	271	18.06	17.93	17.96	19.00
		135	67	18.26	18.15	18.17	19.00
	DFT-s-OFDM 256QAM	1	1	18.42	18.31	18.33	19.00
		1	271	18.64	18.50	18.54	19.00
		135	67	18.59	18.42	18.48	19.00
	CP-OFDM QPSK	1	1	18.10	17.94	17.99	19.00
	CP-OFDM 16QAM	1	1	18.34	18.19	18.23	19.00
	CP-OFDM 64QAM	1	1	18.13	18.00	18.03	19.00
	CP-OFDM 256QAM	1	1	17.84	17.73	17.75	19.00

NR n77 subset-1(NSA)							
Hotspot on-Main Ant2				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				630666/3460	633332/3500	635998/3540	
20MHz	DFT-s-OFDM BPSK	1	1	17.74	17.90	17.73	18.50
		1	49	18.09	18.11	18.12	18.50
		25	12	18.09	18.11	18.09	18.50
		50	0	18.23	18.33	18.24	18.50
	DFT-s-OFDM QPSK	1	1	17.72	17.82	17.75	18.50
		1	49	18.21	18.25	18.17	18.50
		25	12	18.16	18.36	18.25	18.50
		50	0	18.19	18.30	18.29	18.50

	DFT-s-OFDM 16QAM	1	1	17.46	17.49	17.52	18.50
		1	49	17.99	18.09	17.98	18.50
		25	12	18.16	18.15	18.12	18.50
	DFT-s-OFDM 64QAM	1	1	17.64	17.67	17.61	18.50
		1	49	17.96	18.06	17.97	18.50
		25	12	18.17	18.27	18.20	18.50
	DFT-s-OFDM 256QAM	1	1	18.25	18.33	18.20	18.50
		1	49	18.26	18.30	18.23	18.50
		25	12	18.34	18.40	18.25	18.50
	CP-OFDM QPSK	1	1	17.84	17.83	17.84	18.50
	CP-OFDM 16QAM	1	1	18.01	18.04	17.98	18.50
	CP-OFDM 64QAM	1	1	17.56	17.66	17.57	18.50
	CP-OFDM 256QAM	1	1	17.01	17.11	17.04	18.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				631000/3465	633332/3500	635666/3535	
30MHz	DFT-s-OFDM BPSK	1	1	17.76	17.91	17.76	18.50
		1	76	18.12	18.16	18.16	18.50
		36	18	18.11	18.15	18.12	18.50
		75	0	18.26	18.38	18.28	18.50
	DFT-s-OFDM QPSK	1	1	17.75	17.87	17.79	18.50
		1	76	18.23	18.29	18.22	18.50
		36	18	18.20	18.38	18.29	18.50
		75	0	18.23	18.33	18.31	18.50
	DFT-s-OFDM 16QAM	1	1	17.50	17.53	17.55	18.50
		1	76	18.02	18.11	18.01	18.50
		36	18	18.19	18.20	18.16	18.50
	DFT-s-OFDM 64QAM	1	1	17.66	17.71	17.64	18.50
		1	76	17.99	18.11	18.01	18.50
		36	18	18.20	18.32	18.24	18.50
	DFT-s-OFDM 256QAM	1	1	18.27	18.32	18.22	18.50
		1	76	18.29	18.30	18.26	18.50
		36	18	18.33	18.42	18.28	18.50
	CP-OFDM QPSK	1	1	17.87	17.88	17.84	18.50
	CP-OFDM 16QAM	1	1	18.03	18.08	18.01	18.50
	CP-OFDM 64QAM	1	1	17.59	17.71	17.61	18.50
	CP-OFDM	1	1	17.04	17.16	17.08	18.50

	256QAM						
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				631332/3470	633332/3500	635332/3530	
40MHz	DFT-s-OFDM BPSK	1	1	17.75	17.87	17.74	18.50
		1	104	18.10	18.15	18.13	18.50
		50	25	18.08	18.10	18.08	18.50
		100	0	18.24	18.34	18.25	18.50
	DFT-s-OFDM QPSK	1	1	17.72	17.82	17.75	18.50
		1	104	18.20	18.26	18.18	18.50
		50	25	18.18	18.34	18.24	18.50
		100	0	18.21	18.31	18.29	18.50
	DFT-s-OFDM 16QAM	1	1	17.48	17.50	17.53	18.50
		1	104	18.00	18.07	17.98	18.50
		50	25	18.16	18.18	18.13	18.50
	DFT-s-OFDM 64QAM	1	1	17.63	17.66	17.60	18.50
		1	104	17.97	18.07	17.98	18.50
		50	25	18.17	18.27	18.20	18.50
	DFT-s-OFDM 256QAM	1	1	18.22	18.30	18.20	18.50
		1	104	18.27	18.27	18.24	18.50
		50	25	18.34	18.41	18.29	18.50
	CP-OFDM QPSK	1	1	17.86	17.90	17.85	18.50
	CP-OFDM 16QAM	1	1	18.01	18.05	18.00	18.50
	CP-OFDM 64QAM	1	1	17.57	17.67	17.58	18.50
	CP-OFDM 256QAM	1	1	17.01	17.11	17.04	18.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				631666/3475	633332/3500	634998/3525	
50MHz	DFT-s-OFDM BPSK	1	1	17.72	17.83	17.71	18.50
		1	131	18.09	18.11	18.11	18.50
		64	32	18.06	18.09	18.05	18.50
		128	0	18.21	18.29	18.21	18.50
	DFT-s-OFDM QPSK	1	1	17.70	17.78	17.72	18.50
		1	131	18.17	18.21	18.14	18.50
		64	32	18.15	18.29	18.20	18.50
		128	0	18.18	18.27	18.24	18.50
	DFT-s-OFDM 16QAM	1	1	17.45	17.48	17.49	18.50
		1	131	17.97	18.04	17.96	18.50
		64	32	18.13	18.14	18.10	18.50
	DFT-s-OFDM 64QAM	1	1	17.60	17.64	17.57	18.50
		1	131	17.94	18.02	17.94	18.50

		64	32	18.15	18.23	18.17	18.50
	DFT-s-OFDM 256QAM	1	1	18.20	18.26	18.15	18.50
		1	131	18.23	18.25	18.20	18.50
		64	32	18.28	18.35	18.23	18.50
	CP-OFDM QPSK	1	1	17.81	17.82	17.78	18.50
	CP-OFDM 16QAM	1	1	17.97	18.01	17.94	18.50
	CP-OFDM 64QAM	1	1	17.54	17.62	17.54	18.50
	CP-OFDM 256QAM	1	1	16.99	17.07	17.01	18.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				632000/3480	633332/3500	634666/3520	
60MHz	DFT-s-OFDM BPSK	1	1	17.69	17.81	17.67	18.50
		1	160	18.07	18.07	18.08	18.50
		81	40	18.03	18.04	18.01	18.50
		162	0	18.18	18.24	18.17	18.50
	DFT-s-OFDM QPSK	1	1	17.68	17.74	17.67	18.50
		1	160	18.15	18.19	18.10	18.50
		81	40	18.15	18.28	18.18	18.50
		162	0	18.18	18.23	18.21	18.50
	DFT-s-OFDM 16QAM	1	1	17.45	17.46	17.46	18.50
		1	160	17.94	18.02	17.92	18.50
		81	40	18.11	18.10	18.07	18.50
	DFT-s-OFDM 64QAM	1	1	17.57	17.59	17.53	18.50
		1	160	17.91	17.97	17.90	18.50
		81	40	18.13	18.19	18.12	18.50
	DFT-s-OFDM 256QAM	1	1	18.17	18.26	18.12	18.50
		1	160	18.20	18.27	18.17	18.50
		81	40	18.29	18.33	18.19	18.50
	CP-OFDM QPSK	1	1	17.79	17.78	17.79	18.50
	CP-OFDM 16QAM	1	1	17.94	17.96	17.90	18.50
	CP-OFDM 64QAM	1	1	17.51	17.57	17.50	18.50
	CP-OFDM 256QAM	1	1	16.97	17.03	16.96	18.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				632333/3485	633332/3500	634333/3515	
70MHz	DFT-s-OFDM BPSK	1	1	17.71	17.82	17.70	18.50
		1	187	18.10	18.12	18.12	18.50

		92	45	18.05	18.08	18.04	18.50
		180	0	18.21	18.29	18.21	18.50
	DFT-s-OFDM QPSK	1	1	17.71	17.79	17.71	18.50
		1	187	18.17	18.23	18.15	18.50
		92	45	18.19	18.30	18.22	18.50
		180	0	18.22	18.26	18.23	18.50
	DFT-s-OFDM 16QAM	1	1	17.49	17.50	17.49	18.50
		1	187	17.97	18.04	17.95	18.50
		92	46	18.14	18.15	18.11	18.50
	DFT-s-OFDM 64QAM	1	1	17.59	17.63	17.56	18.50
		1	187	17.94	18.02	17.94	18.50
		92	46	18.16	18.24	18.16	18.50
	DFT-s-OFDM 256QAM	1	1	18.19	18.25	18.14	18.50
		1	187	18.23	18.27	18.20	18.50
		92	46	18.28	18.35	18.22	18.50
	CP-OFDM QPSK	1	1	17.82	17.83	17.79	18.50
	CP-OFDM 16QAM	1	1	17.96	18.00	17.93	18.50
	CP-OFDM 64QAM	1	1	17.54	17.62	17.54	18.50
	CP-OFDM 256QAM	1	1	17.00	17.08	17.00	18.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				632666/3490	633332/3500	633998/3510	
80MHz	DFT-s-OFDM BPSK	1	1	17.70	17.78	17.68	18.50
		1	215	18.08	18.11	18.09	18.50
		108	54	18.02	18.03	18.00	18.50
		216	0	18.19	18.25	18.18	18.50
	DFT-s-OFDM QPSK	1	1	17.68	17.74	17.67	18.50
		1	215	18.14	18.20	18.11	18.50
		108	54	18.17	18.26	18.17	18.50
		216	0	18.20	18.24	18.21	18.50
	DFT-s-OFDM 16QAM	1	1	17.47	17.47	17.47	18.50
		1	215	17.95	18.00	17.92	18.50
		108	54	18.11	18.13	18.08	18.50
	DFT-s-OFDM 64QAM	1	1	17.56	17.58	17.52	18.50
		1	215	17.92	17.98	17.91	18.50
		108	54	18.13	18.19	18.12	18.50
	DFT-s-OFDM 256QAM	1	1	18.14	18.23	18.12	18.50
		1	215	18.21	18.24	18.18	18.50
		108	54	18.29	18.34	18.23	18.50
	CP-OFDM	1	1	17.81	17.85	17.80	18.50

	QPSK						
	CP-OFDM 16QAM	1	1	17.94	17.97	17.92	18.50
	CP-OFDM 64QAM	1	1	17.52	17.58	17.51	18.50
	CP-OFDM 256QAM	1	1	16.97	17.03	16.96	18.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				633000/3495	633332/3500	633666/3505	
90MHz	DFT-s-OFDM BPSK	1	1	17.67	17.74	17.65	18.50
		1	243	18.07	18.07	18.07	18.50
		120	60	18.00	18.02	17.97	18.50
		243	0	18.16	18.20	18.14	18.50
	DFT-s-OFDM QPSK	1	1	17.66	17.70	17.64	18.50
		1	243	18.11	18.15	18.07	18.50
		120	60	18.14	18.21	18.13	18.50
		243	0	18.17	18.20	18.16	18.50
	DFT-s-OFDM 16QAM	1	1	17.44	17.45	17.43	18.50
		1	243	17.92	17.97	17.90	18.50
		120	60	18.08	18.09	18.05	18.50
	DFT-s-OFDM 64QAM	1	1	17.53	17.56	17.49	18.50
		1	243	17.89	17.93	17.87	18.50
		120	60	18.11	18.15	18.09	18.50
	DFT-s-OFDM 256QAM	1	1	18.12	18.19	18.07	18.50
		1	243	18.17	18.22	18.14	18.50
		120	60	18.23	18.28	18.17	18.50
	CP-OFDM QPSK	1	1	17.76	17.77	17.73	18.50
	CP-OFDM 16QAM	1	1	17.90	17.93	17.86	18.50
	CP-OFDM 64QAM	1	1	17.49	17.53	17.47	18.50
	CP-OFDM 256QAM	1	1	16.95	16.99	16.93	18.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				/	633332/3500	/	
100MHz	DFT-s-OFDM BPSK	1	1	/	17.62	/	18.50
		1	271	/	18.05	/	18.50
		135	67	/	17.94	/	18.50
		270	0	/	18.10	/	18.50
	DFT-s-OFDM QPSK	1	1	/	17.61	/	18.50
		1	271	/	**18.03**	/	18.50
		135	67	/	**18.09**	/	18.50

		270	0	/	**18.11**	/	18.50
	DFT-s-OFDM 16QAM	1	1	/	17.39	/	18.50
		1	271	/	17.88	/	18.50
		135	67	/	18.02	/	18.50
	DFT-s-OFDM 64QAM	1	1	/	17.46	/	18.50
		1	271	/	17.83	/	18.50
		135	67	/	18.06	/	18.50
	DFT-s-OFDM 256QAM	1	1	/	18.02	/	18.50
		1	271	/	18.10	/	18.50
		135	67	/	18.11	/	18.50
	CP-OFDM QPSK	1	1	/	17.66	/	18.50
	CP-OFDM 16QAM	1	1	/	17.80	/	18.50
	CP-OFDM 64QAM	1	1	/	17.43	/	18.50
	CP-OFDM 256QAM	1	1	/	16.90	/	18.50

NR n77 subset-2 (NSA)							
Hotspot on-Main Ant2				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				647334/3710	656000/3840	664666/3970	
20MHz	DFT-s-OFDM BPSK	1	1	16.83	17.07	17.87	18.50
		1	49	17.11	17.81	17.69	18.50
		25	12	17.63	18.37	18.22	18.50
		50	0	17.55	18.39	18.42	18.50
	DFT-s-OFDM QPSK	1	1	16.77	17.05	17.93	18.50
		1	49	17.20	17.88	17.75	18.50
		25	12	17.49	18.43	18.24	18.50
		50	0	17.51	18.34	18.32	18.50
	DFT-s-OFDM 16QAM	1	1	16.65	16.69	17.65	18.50
		1	49	16.95	17.63	17.48	18.50
		25	12	17.59	18.26	18.23	18.50
	DFT-s-OFDM 64QAM	1	1	16.69	16.87	17.72	18.50
		1	49	17.02	17.75	17.56	18.50
		25	12	17.55	18.23	18.20	18.50
	DFT-s-OFDM 256QAM	1	1	17.27	17.45	18.30	18.50
		1	49	17.62	18.17	18.11	18.50
		25	12	17.82	18.22	18.28	18.50
	CP-OFDM QPSK	1	1	16.85	17.08	17.88	18.50
	CP-OFDM	1	1	17.14	17.38	17.90	18.50

	16QAM						
	CP-OFDM 64QAM	1	1	16.92	17.20	17.40	18.50
	CP-OFDM 256QAM	1	1	16.87	16.91	17.35	18.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				647667/3715	656000/3840	664333/3965	
30MHz	DFT-s-OFDM BPSK	1	1	16.80	17.03	17.84	18.50
		1	76	17.10	17.77	17.67	18.50
		36	18	17.61	18.36	18.10	18.50
		75	0	17.52	18.34	18.38	18.50
	DFT-s-OFDM QPSK	1	1	16.75	17.01	17.90	18.50
		1	76	17.17	17.83	17.71	18.50
		36	18	17.46	18.38	18.20	18.50
		75	0	17.48	18.30	18.27	18.50
	DFT-s-OFDM 16QAM	1	1	16.62	16.67	17.61	18.50
		1	76	16.92	17.60	17.46	18.50
		36	18	17.56	18.22	18.20	18.50
	DFT-s-OFDM 64QAM	1	1	16.66	16.85	17.69	18.50
		1	76	16.99	17.70	17.52	18.50
		36	18	17.53	18.19	18.17	18.50
	DFT-s-OFDM 256QAM	1	1	17.25	17.41	18.25	18.50
		1	76	17.58	18.15	18.07	18.50
		36	18	17.76	18.16	18.22	18.50
	CP-OFDM QPSK	1	1	16.80	17.00	17.81	18.50
	CP-OFDM 16QAM	1	1	17.10	17.34	17.84	18.50
	CP-OFDM 64QAM	1	1	16.89	17.15	17.36	18.50
	CP-OFDM 256QAM	1	1	16.85	16.87	17.32	18.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				648000/3720	656000/3840	664000/3960	
40MHz	DFT-s-OFDM BPSK	1	1	16.77	17.01	17.80	18.50
		1	104	17.08	17.73	17.64	18.50
		50	25	17.58	18.31	18.15	18.50
		100	0	17.49	18.29	18.34	18.50
	DFT-s-OFDM QPSK	1	1	16.73	16.97	17.85	18.50
		1	104	17.15	17.81	17.67	18.50
		50	25	17.46	18.37	18.18	18.50
		100	0	17.48	18.26	18.24	18.50
	DFT-s-OFDM	1	1	16.62	16.65	17.58	18.50

	16QAM	1	104	16.89	17.58	17.42	18.50
		50	25	17.54	18.18	18.17	18.50
	DFT-s-OFDM 64QAM	1	1	16.63	16.80	17.65	18.50
		1	104	16.96	17.65	17.48	18.50
		50	25	17.51	18.15	18.12	18.50
	DFT-s-OFDM 256QAM	1	1	17.22	17.41	18.22	18.50
		1	104	17.55	18.17	18.04	18.50
		50	25	17.77	18.14	18.18	18.50
	CP-OFDM QPSK	1	1	16.78	16.96	17.82	18.50
	CP-OFDM 16QAM	1	1	17.07	17.29	17.80	18.50
	CP-OFDM 64QAM	1	1	16.86	17.10	17.32	18.50
	CP-OFDM 256QAM	1	1	16.83	16.83	17.27	18.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				648333/3725	656000/3840	663666/3955	
50MHz	DFT-s-OFDM BPSK	1	1	16.79	17.02	17.83	18.50
		1	131	17.11	17.78	17.68	18.50
		64	32	17.60	18.35	18.21	18.50
		128	0	17.52	18.34	18.38	18.50
	DFT-s-OFDM QPSK	1	1	16.76	17.02	17.89	18.50
		1	131	17.17	17.85	17.72	18.50
		64	32	17.50	18.39	18.22	18.50
		128	0	17.52	18.29	18.26	18.50
	DFT-s-OFDM 16QAM	1	1	16.66	16.69	17.61	18.50
		1	131	16.92	17.60	17.45	18.50
		64	32	17.57	18.23	18.21	18.50
	DFT-s-OFDM 64QAM	1	1	16.65	16.84	17.68	18.50
		1	131	16.99	17.70	17.52	18.50
		64	32	17.54	18.20	18.16	18.50
	DFT-s-OFDM 256QAM	1	1	17.24	17.40	18.24	18.50
		1	131	17.58	18.17	18.07	18.50
		64	32	17.76	18.16	18.21	18.50
	CP-OFDM QPSK	1	1	16.81	17.01	17.82	18.50
	CP-OFDM 16QAM	1	1	17.09	17.33	17.83	18.50
	CP-OFDM 64QAM	1	1	16.89	17.15	17.36	18.50
	CP-OFDM 256QAM	1	1	16.86	16.88	17.31	18.50

Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				648666/3730	656000/3840	663334/3950	
60MHz	DFT-s-OFDM BPSK	1	1	16.78	16.98	17.81	18.50
		1	160	17.09	17.77	17.65	18.50
		81	40	17.57	18.30	18.38	18.50
		162	0	17.50	18.30	18.35	18.50
	DFT-s-OFDM QPSK	1	1	16.73	16.97	17.85	18.50
		1	160	17.14	17.82	17.68	18.50
		81	40	17.48	18.35	18.17	18.50
		162	0	17.50	18.27	18.24	18.50
	DFT-s-OFDM 16QAM	1	1	16.64	16.66	17.59	18.50
		1	160	16.90	17.56	17.42	18.50
		81	40	17.54	18.21	18.18	18.50
	DFT-s-OFDM 64QAM	1	1	16.62	16.79	17.64	18.50
		1	160	16.97	17.66	17.49	18.50
		81	40	17.51	18.15	18.12	18.50
	DFT-s-OFDM 256QAM	1	1	17.19	17.38	18.22	18.50
		1	160	17.56	18.14	18.05	18.50
		81	40	17.77	18.15	18.22	18.50
	CP-OFDM QPSK	1	1	16.80	17.03	17.83	18.50
	CP-OFDM 16QAM	1	1	17.07	17.30	17.82	18.50
	CP-OFDM 64QAM	1	1	16.87	17.11	17.33	18.50
	CP-OFDM 256QAM	1	1	16.83	16.83	17.27	18.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				649000/3735	656000/3840	663000/3745	
70MHz	DFT-s-OFDM BPSK	1	1	16.75	16.94	17.78	18.50
		1	187	17.08	17.73	17.63	18.50
		92	45	17.55	18.29	18.12	18.50
		180	0	17.47	18.25	18.31	18.50
	DFT-s-OFDM QPSK	1	1	16.71	16.93	17.82	18.50
		1	187	17.11	17.77	17.64	18.50
		92	45	17.45	18.30	18.13	18.50
		180	0	17.47	18.23	18.19	18.50
	DFT-s-OFDM 16QAM	1	1	16.61	16.64	17.55	18.50
		1	187	16.87	17.53	17.40	18.50
		92	46	17.51	18.17	18.15	18.50
	DFT-s-OFDM 64QAM	1	1	16.59	16.77	17.61	18.50
		1	187	16.94	17.61	17.45	18.50
		92	46	17.49	18.11	18.09	18.50

	DFT-s-OFDM 256QAM	1	1	17.17	17.34	18.17	18.50
		1	187	17.52	18.12	18.01	18.50
		92	46	17.71	18.09	18.16	18.50
	CP-OFDM QPSK	1	1	16.75	16.95	17.76	18.50
	CP-OFDM 16QAM	1	1	17.03	17.26	17.76	18.50
	CP-OFDM 64QAM	1	1	16.84	17.06	17.29	18.50
	CP-OFDM 256QAM	1	1	16.81	16.79	17.24	18.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				649334/3740	656000/3840	662666/3940	
80MHz	DFT-s-OFDM BPSK	1	1	16.72	16.92	17.74	18.50
		1	215	17.06	17.69	17.60	18.50
		108	54	17.52	18.24	18.44	18.50
		216	0	17.44	18.20	18.27	18.50
	DFT-s-OFDM QPSK	1	1	16.69	16.89	17.77	18.50
		1	215	17.09	17.75	17.60	18.50
		108	54	17.45	18.29	18.11	18.50
		216	0	17.47	18.19	18.16	18.50
	DFT-s-OFDM 16QAM	1	1	16.61	16.62	17.52	18.50
		1	215	16.84	17.51	17.36	18.50
		108	54	17.49	18.13	18.12	18.50
	DFT-s-OFDM 64QAM	1	1	16.56	16.72	17.57	18.50
		1	215	16.91	17.56	17.41	18.50
		108	54	17.47	18.07	18.04	18.50
	DFT-s-OFDM 256QAM	1	1	17.14	17.34	18.14	18.50
		1	215	17.49	18.14	17.98	18.50
		108	54	17.72	18.07	18.12	18.50
	CP-OFDM QPSK	1	1	16.73	16.91	17.77	18.50
	CP-OFDM 16QAM	1	1	17.00	17.21	17.72	18.50
	CP-OFDM 64QAM	1	1	16.81	17.01	17.25	18.50
	CP-OFDM 256QAM	1	1	16.79	16.75	17.19	18.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				649666/3745	656000/3840	662333/3935	
90MHz	DFT-s-OFDM BPSK	1	1	16.74	16.93	17.77	18.50
		1	243	17.09	17.74	17.64	18.50
		120	60	17.54	18.28	18.47	18.50

		243	0	17.47	18.25	18.31	18.50
	DFT-s-OFDM QPSK	1	1	16.72	16.94	17.81	18.50
		1	243	17.11	17.79	17.65	18.50
		120	60	17.49	18.31	18.15	18.50
		243	0	17.51	18.22	18.18	18.50
	DFT-s-OFDM 16QAM	1	1	16.65	16.66	17.55	18.50
		1	243	16.87	17.53	17.39	18.50
		120	60	17.52	18.18	18.16	18.50
	DFT-s-OFDM 64QAM	1	1	16.58	16.76	17.60	18.50
		1	243	16.94	17.61	17.45	18.50
		120	60	17.50	18.12	18.08	18.50
	DFT-s-OFDM 256QAM	1	1	17.16	17.33	18.16	18.50
		1	243	17.52	18.14	18.01	18.50
		120	60	17.71	18.09	18.15	18.50
	CP-OFDM QPSK	1	1	16.76	16.96	17.77	18.50
	CP-OFDM 16QAM	1	1	17.02	17.25	17.75	18.50
	CP-OFDM 64QAM	1	1	16.84	17.06	17.29	18.50
	CP-OFDM 256QAM	1	1	16.82	16.80	17.23	18.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				650000/3750	656000/3840	662000/3930	
100MHz	DFT-s-OFDM BPSK	1	1	16.70	16.85	17.72	18.50
		1	271	17.06	17.69	17.59	18.50
		135	67	17.49	18.22	18.40	18.50
		270	0	17.42	18.16	18.24	18.50
	DFT-s-OFDM QPSK	1	1	16.67	16.85	**17.74**	18.50
		1	271	**17.05**	**17.71**	17.57	18.50
		135	67	17.44	**18.22**	18.06	18.50
		270	0	17.46	**18.16**	18.11	18.50
	DFT-s-OFDM 16QAM	1	1	16.60	16.61	17.49	18.50
		1	271	16.82	17.46	17.34	18.50
		135	67	17.46	18.12	18.10	18.50
	DFT-s-OFDM 64QAM	1	1	16.52	16.69	17.53	18.50
		1	271	16.89	17.52	17.38	18.50
		135	67	17.45	18.03	18.01	18.50
	DFT-s-OFDM 256QAM	1	1	17.09	17.27	18.09	18.50
		1	271	17.46	18.09	17.95	18.50
		135	67	17.66	18.02	18.10	18.50
	CP-OFDM QPSK	1	1	16.70	16.90	17.71	18.50

	CP-OFDM 16QAM	1	1	16.96	17.18	17.68	18.50
	CP-OFDM 64QAM	1	1	16.79	16.97	17.22	18.50
	CP-OFDM 256QAM	1	1	16.77	16.71	17.16	18.50

9.5 WLAN Mode

Normal Power & Receiver off & Hotspot on-ANT7			
Wi-Fi 2.4G	Channel /Frequency(MHz)	Maximum Output Power (dBm)	
Mode		Tune-up	Meas.
802.11b (1M)	1/2412	20.50	19.66
	6/2437	20.50	19.55
	11/2462	20.50	**19.85**
802.11g (6M)	1/2412	20.00	18.39
	6/2437	20.00	18.08
	11/2462	20.00	18.34
802.11n (HT20,800ns) (MCS0)	1/2412	20.00	18.22
	6/2437	20.00	18.03
	11/2462	20.00	18.01
802.11n (HT40,400ns) (MCS0)	3/2422	18.00	16.59
	6/2437	18.00	16.27
	9/2452	18.00	16.54
Note: Initial test configuration is 802.11b mode.			

Receiver on-ANT7			
Wi-Fi 2.4G	Channel /Frequency(MHz)	Maximum Output Power (dBm)	
Mode		Tune-up	Meas.
802.11b (1M)	1/2412	18.00	**16.82**
	6/2437	18.00	16.35
	11/2462	18.00	16.41
802.11g (6M)	1/2412	17.00	15.87
	6/2437	17.00	15.81
	11/2462	17.00	15.55
802.11n (HT20,800ns) (MCS0)	1/2412	17.00	15.72
	6/2437	17.00	15.68
	11/2462	17.00	15.49
802.11n (HT40,400ns) (MCS0)	3/2422	17.00	15.28
	6/2437	17.00	15.21
	9/2452	17.00	15.33
Note: Initial test configuration is 802.11b mode.			

WWAN+WLAN Receiver on-ANT7			
Wi-Fi 2.4G	Channel /Frequency(MHz)	Maximum Output Power (dBm)	
Mode		Tune-up	Meas.
802.11b (1M)	1/2412	10.00	**8.62**
	6/2437	10.00	8.33
	11/2462	10.00	8.19
802.11g (6M)	1/2412	9.00	7.22
	6/2437	9.00	7.50
	11/2462	9.00	7.29
802.11n (HT20,800ns) (MCS0)	1/2412	9.00	7.42
	6/2437	9.00	7.28
	11/2462	9.00	7.40
802.11n (HT40,400ns) (MCS0)	3/2422	9.00	7.15
	6/2437	9.00	7.26
	9/2452	9.00	7.11
Note: Initial test configuration is 802.11b mode.			

WWAN+WLAN Hotspot on-ANT7			
Wi-Fi 2.4G	Channel /Frequency(MHz)	Maximum Output Power (dBm)	
Mode		Tune-up	Meas.
802.11b (1M)	1/2412	15.00	**13.48**
	6/2437	15.00	13.14
	11/2462	15.00	13.11
802.11g (6M)	1/2412	14.00	12.30
	6/2437	14.00	12.36
	11/2462	14.00	12.25
802.11n (HT20,800ns) (MCS0)	1/2412	14.00	12.20
	6/2437	14.00	12.22
	11/2462	14.00	12.18
802.11n (HT40,400ns) (MCS0)	3/2422	14.00	12.31
	6/2437	14.00	12.12
	9/2452	14.00	12.26
Note: Initial test configuration is 802.11b mode.			

WWAN+WLAN Receiver off-ANT7			
Wi-Fi 2.4G	Channel /Frequency(MHz)	Maximum Output Power (dBm)	
Mode		Tune-up	Meas.
802.11b (1M)	1/2412	11.00	**9.48**
	6/2437	11.00	9.25
	11/2462	11.00	9.05
802.11g (6M)	1/2412	9.00	8.33
	6/2437	9.00	8.36
	11/2462	9.00	8.32
802.11n (HT20,800ns) (MCS0)	1/2412	9.00	8.12
	6/2437	9.00	8.22
	11/2462	9.00	8.17
802.11n (HT40,400ns) (MCS0)	3/2422	9.00	8.43
	6/2437	9.00	8.06
	9/2452	9.00	7.81
Note: Initial test configuration is 802.11b mode.			

Normal Power & Receiver off & Hotspot on-ANT7			
Wi-Fi 5G (U-NII-1)	Channel /Frequency(MHz)	Maximum Output Power (dBm)	
Mode		Tune-up	Meas.
802.11a (6M)	36/5180	19.50	**18.82**
	40/5200	19.50	18.79
	44/5220	19.50	18.74
	48/5240	19.50	18.74
802.11n-HT20 (MCS0)	36/5180	19.00	18.67
	40/5200	19.00	18.70
	44/5220	19.00	18.62
	48/5240	19.00	18.61
802.11n-HT40 (MCS0)	38/5190	15.00	14.81
	46/5230	15.00	14.82
802.11ac-VHT20 (MCS0)	36/5180	19.00	18.81
	40/5200	19.00	18.80
	44/5220	19.00	18.70
	48/5240	19.00	18.74
802.11ac-VHT40 (MCS0)	38/5190	14.00	13.46
	46/5230	14.00	13.47
802.11ac-VHT80	42/5210	14.00	13.53

(MCS0)			
Note. Initial test configuration is 802.11a mode, since the highest maximum output power.			

Normal Power & Receiver off & Hotspot on-ANT7			
Wi-Fi 5G (U-NII-2A) Mode	Channel /Frequency(MHz)	Maximum Output Power (dBm)	
		Tune-up	Meas.
802.11a (6M)	52/5260	19.50	**18.70**
	56/5280	19.50	18.68
	60/5300	19.50	18.66
	64/5320	19.50	18.57
802.11n-HT20 (MCS0)	52/5260	19.00	18.55
	56/5280	19.00	18.49
	60/5300	19.00	18.47
	64/5320	19.00	18.48
802.11n-HT40 (MCS0)	54/5270	15.00	14.80
	62/5310	15.00	14.65
802.11ac-VHT20 (MCS0)	52/5260	19.00	18.74
	56/5280	19.00	18.63
	60/5300	19.00	18.60
	64/5320	19.00	18.60
802.11ac-VHT40 (MCS0)	54/5270	14.00	13.22
	62/5310	14.00	13.20
802.11ac-VHT80 (MCS0)	58/5290	14.00	13.28
Note. Initial test configuration is 802.11a mode, since the highest maximum output power.			

Normal Power & Receiver off & Hotspot on-ANT7			
Wi-Fi 5G (U-NII-2C) Mode	Channel /Frequency(MHz)	Maximum Output Power (dBm)	
		Tune-up	Meas.
802.11a (6M)	100/5500	19.50	18.49
	116/5580	19.50	18.20
	132/5660	19.50	**18.70**
	140/5700	19.50	18.23
802.11n-HT20 (MCS0)	100/5500	19.00	18.46
	116/5580	19.00	18.09
	132/5660	19.00	18.57

	140/5700	19.00	18.07
802.11n-HT40 (MCS0)	102/5510	15.00	14.47
	110/5550	15.00	14.38
	118/5590	15.00	14.24
	134/5670	15.00	14.68
802.11ac-VHT20 (MCS0)	100/5500	19.00	18.45
	116/5580	19.00	18.11
	132/5660	19.00	18.57
	140/5700	19.00	18.18
802.11ac-VHT40 (MCS0)	102/5510	14.00	12.84
	110/5550	14.00	12.69
	118/5590	14.00	12.63
	134/5670	14.00	13.20
802.11ac-VHT80 (MCS0)	106/5530	14.00	12.74
	122/5610	14.00	12.55
Note. Initial test configuration is 802.11a mode, since the highest maximum output power.			

Normal Power & Receiver off & Hotspot on-ANT7			
Wi-Fi 5G (U-NII-3) Mode	Channel /Frequency(MHz)	Maximum Output Power (dBm)	
		Tune-up	Meas.
802.11a (6M)	149/5745	19.50	**17.70**
	157/5785	19.50	17.63
	165/5825	19.50	17.51
802.11n-HT20 (MCS0)	149/5745	19.00	17.66
	157/5785	19.00	17.31
	165/5825	19.00	17.18
802.11n-HT40 (MCS0)	151/5755	15.00	13.96
	159/5795	15.00	13.66
802.11ac-VHT20 (MCS0)	149/5745	19.00	17.82
	157/5785	19.00	17.52
	165/5825	19.00	17.39
802.11ac-VHT40 (MCS0)	151/5755	14.00	12.22
	159/5795	14.00	12.19
802.11ac-VHT80 (MCS0)	155/5775	14.00	12.10
Note. Initial test configuration is 802.11a mode, since the highest maximum output power.			

Receiver on-ANT7			
Wi-Fi 5G (U-NII-1) Mode	Channel /Frequency(MHz)	Maximum Output Power (dBm)	
		Tune-up	Meas.
802.11a (6M)	36/5180	14.50	13.21
	40/5200	14.50	13.17
	44/5220	14.50	13.17
	48/5240	14.50	**13.26**
802.11n-HT20 (MCS0)	36/5180	13.20	12.09
	40/5200	13.20	11.91
	44/5220	13.20	12.17
	48/5240	13.20	12.21
802.11n-HT40 (MCS0)	38/5190	12.10	10.94
	46/5230	12.10	10.91
802.11ac-VHT20 (MCS0)	36/5180	13.50	12.05
	40/5200	13.50	12.02
	44/5220	13.50	12.11
	48/5240	13.50	12.12
802.11ac-VHT40 (MCS0)	38/5190	12.00	10.93
	46/5230	12.00	10.94
802.11ac-VHT80 (MCS0)	42/5210	13.50	11.51
Note. Initial test configuration is 802.11a mode, since the highest maximum output power.			

Receiver on-ANT7			
Wi-Fi 5G (U-NII-2A) Mode	Channel /Frequency(MHz)	Maximum Output Power (dBm)	
		Tune-up	Meas.
802.11a (6M)	52/5260	14.50	13.60
	56/5280	14.50	13.72
	60/5300	14.50	**13.91**
	64/5320	14.50	13.90
802.11n-HT20 (MCS0)	52/5260	13.20	12.61
	56/5280	13.20	12.58
	60/5300	13.20	12.81
	64/5320	13.20	13.02
802.11n-HT40 (MCS0)	54/5270	12.10	11.40
	62/5310	12.10	11.53
802.11ac-VHT20	52/5260	13.50	12.62

(MCS0)	56/5280	13.50	12.82
	60/5300	13.50	12.90
	64/5320	13.50	13.02
802.11ac-VHT40 (MCS0)	54/5270	12.00	11.42
	62/5310	12.00	11.62
802.11ac-VHT80 (MCS0)	58/5290	13.50	12.38
Note. Initial test configuration is 802.11a mode, since the highest maximum output power.			

Receiver on-ANT7			
Wi-Fi 5G (U-NII-2C) Mode	Channel /Frequency(MHz)	Maximum Output Power (dBm)	
		Tune-up	Meas.
802.11a (6M)	100/5500	14.50	**13.52**
	116/5580	14.50	13.50
	132/5660	14.50	13.32
	140/5700	14.50	12.96
802.11n-HT20 (MCS0)	100/5500	13.20	12.16
	116/5580	13.20	12.48
	132/5660	13.20	12.37
	140/5700	13.20	12.07
802.11n-HT40 (MCS0)	102/5510	12.10	11.40
	110/5550	12.10	11.33
	118/5590	12.10	11.18
	134/5670	12.10	11.10
802.11ac-VHT20 (MCS0)	100/5500	13.50	12.62
	116/5580	13.50	12.44
	132/5660	13.50	12.52
	140/5700	13.50	12.06
802.11ac-VHT40 (MCS0)	102/5510	12.00	11.26
	110/5550	12.00	11.26
	118/5590	12.00	10.85
	134/5670	12.00	11.06
802.11ac-VHT80 (MCS0)	106/5530	12.50	12.29
	122/5610	13.50	12.04
Note. Initial test configuration is 802.11a mode, since the highest maximum output power.			

Receiver on-ANT7			
Wi-Fi 5G (U-NII-3) Mode	Channel /Frequency(MHz)	Maximum Output Power (dBm)	
		Tune-up	Meas.
802.11a (6M)	149/5745	14.50	**12.92**
	157/5785	14.50	12.67
	165/5825	14.50	12.75
802.11n-HT20 (MCS0)	149/5745	13.20	11.82
	157/5785	13.20	11.32
	165/5825	13.20	11.67
802.11n-HT40 (MCS0)	151/5755	12.10	10.52
	159/5795	12.10	10.24
802.11ac-VHT20 (MCS0)	149/5745	13.50	11.96
	157/5785	13.50	11.70
	165/5825	13.50	11.64
802.11ac-VHT40 (MCS0)	151/5755	12.00	10.51
	159/5795	12.00	10.35
802.11ac-VHT80 (MCS0)	155/5775	13.50	11.54
Note. Initial test configuration is 802.11a mode, since the highest maximum output power.			

WWAN+WLAN Receiver on-ANT7			
Wi-Fi 5G (U-NII-3) Mode	Channel /Frequency(MHz)	Maximum Output Power (dBm)	
		Tune-up	Meas.
802.11a (6M)	149/5745	9.00	7.51
	157/5785	9.00	**7.74**
	165/5825	9.00	7.46
802.11n-HT20 (MCS0)	149/5745	8.00	6.86
	157/5785	8.00	6.80
	165/5825	8.00	6.61
802.11n-HT40 (MCS0)	151/5755	7.00	5.58
	159/5795	7.00	5.32
802.11ac-VHT20 (MCS0)	149/5745	8.00	6.83
	157/5785	8.00	6.52
	165/5825	8.00	6.51
802.11ac-VHT40 (MCS0)	151/5755	7.00	5.40
	159/5795	7.00	5.22

802.11ac-VHT80 (MCS0)	155/5775	8.00	6.11
Note. Initial test configuration is 802.11a mode, since the highest maximum output power.			

WWAN+WLAN Receiver off-ANT7			
Wi-Fi 5G (U-NII-1) Mode	Channel /Frequency(MHz)	Maximum Output Power (dBm)	
		Tune-up	Meas.
802.11a (6M)	36/5180	10.20	9.52
	40/5200	10.20	9.53
	44/5220	10.20	**9.74**
	48/5240	10.20	9.53
802.11n-HT20 (MCS0)	36/5180	9.00	8.34
	40/5200	9.00	8.24
	44/5220	9.00	8.32
	48/5240	9.00	8.32
802.11n-HT40 (MCS0)	38/5190	8.00	7.52
	46/5230	8.00	7.51
802.11ac-VHT20 (MCS0)	36/5180	9.00	8.35
	40/5200	9.00	8.58
	44/5220	9.00	8.28
	48/5240	9.00	8.34
802.11ac-VHT40 (MCS0)	38/5190	8.00	7.54
	46/5230	8.00	7.51
802.11ac-VHT80 (MCS0)	42/5210	8.50	7.62
Note. Initial test configuration is 802.11a mode, since the highest maximum output power.			

WWAN+WLAN Receiver off-ANT7			
Wi-Fi 5G (U-NII-2A) Mode	Channel /Frequency(MHz)	Maximum Output Power (dBm)	
		Tune-up	Meas.
802.11a (6M)	52/5260	10.20	**9.84**
	56/5280	10.20	9.72
	60/5300	10.20	9.44
	64/5320	10.20	9.83
802.11n-HT20 (MCS0)	52/5260	9.00	8.63
	56/5280	9.00	8.55

	60/5300	9.00	8.42
	64/5320	9.00	8.43
802.11n-HT40 (MCS0)	54/5270	8.00	7.61
	62/5310	8.00	7.60
802.11ac-VHT20 (MCS0)	52/5260	9.00	8.59
	56/5280	9.00	8.53
	60/5300	9.00	8.51
	64/5320	9.00	8.23
802.11ac-VHT40 (MCS0)	54/5270	8.00	7.55
	62/5310	8.00	7.15
802.11ac-VHT80 (MCS0)	58/5290	8.50	7.34
Note. Initial test configuration is 802.11a mode, since the highest maximum output power.			

WWAN+WLAN Receiver off-ANT7			
Wi-Fi 5G (U-NII-2C) Mode	Channel /Frequency(MHz)	Maximum Output Power (dBm)	
		Tune-up	Meas.
802.11a (6M)	100/5500	10.20	**9.55**
	116/5580	10.20	9.41
	132/5660	10.20	9.52
	140/5700	10.20	8.98
802.11n-HT20 (MCS0)	100/5500	9.00	8.79
	116/5580	9.00	8.19
	132/5660	9.00	8.53
	140/5700	9.00	8.19
802.11n-HT40 (MCS0)	102/5510	8.00	7.49
	110/5550	8.00	7.39
	118/5590	8.00	7.20
	134/5670	8.00	7.51
802.11ac-VHT20 (MCS0)	100/5500	9.00	8.79
	116/5580	9.00	8.33
	132/5660	9.00	8.59
	140/5700	9.00	8.20
802.11ac-VHT40 (MCS0)	102/5510	8.00	7.61
	110/5550	8.00	7.26
	118/5590	8.00	7.25
	134/5670	8.00	7.50
802.11ac-VHT80	106/5530	8.50	8.17

(MCS0)	122/5610	8.50	7.83
Note. Initial test configuration is 802.11a mode, since the highest maximum output power.			

WWAN+WLAN Receiver off-ANT7			
Wi-Fi 5G (U-NII-3)	Channel /Frequency(MHz)	Maximum Output Power (dBm)	
Mode		Tune-up	Meas.
802.11a (6M)	149/5745	10.20	**8.53**
	157/5785	10.20	8.47
	165/5825	10.20	8.33
802.11n-HT20 (MCS0)	149/5745	9.00	7.85
	157/5785	9.00	7.51
	165/5825	9.00	7.30
802.11n-HT40 (MCS0)	151/5755	8.00	6.55
	159/5795	8.00	6.30
802.11ac-VHT20 (MCS0)	149/5745	9.00	8.05
	157/5785	9.00	7.43
	165/5825	9.00	7.41
802.11ac-VHT40 (MCS0)	151/5755	7.50	5.96
	159/5795	7.50	5.58
802.11ac-VHT80 (MCS0)	155/5775	8.50	7.41
Note. Initial test configuration is 802.11a mode, since the highest maximum output power.			

WWAN+WLAN Hotspot on-ANT7			
Wi-Fi 5G (U-NII-1)	Channel /Frequency(MHz)	Maximum Output Power (dBm)	
Mode		Tune-up	Meas.
802.11a (6M)	36/5180	13.00	12.22
	40/5200	13.00	12.09
	44/5220	13.00	12.01
	48/5240	13.00	**12.31**
802.11n-HT20 (MCS0)	36/5180	12.00	11.43
	40/5200	12.00	11.51
	44/5220	12.00	11.54
	48/5240	12.00	11.43
802.11n-HT40 (MCS0)	38/5190	11.00	10.65
	46/5230	11.00	10.29
802.11ac-VHT20 (MCS0)	36/5180	12.00	11.51
	40/5200	12.00	11.62

	44/5220	12.00	11.55
	48/5240	12.00	11.40
802.11ac-VHT40 (MCS0)	38/5190	11.00	10.43
	46/5230	11.00	10.32
802.11ac-VHT80 (MCS0)	42/5210	11.50	11.29
Note. Initial test configuration is 802.11a mode, since the highest maximum output power.			

WWAN+WLAN Hotspot on-ANT7			
Wi-Fi 5G (U-NII-2A) Mode	Channel /Frequency(MHz)	Maximum Output Power (dBm)	
		Tune-up	Meas.
802.11a (6M)	52/5260	13.00	**12.56**
	56/5280	13.00	12.45
	60/5300	13.00	12.49
	64/5320	13.00	12.55
802.11n-HT20 (MCS0)	52/5260	12.00	11.82
	56/5280	12.00	11.58
	60/5300	12.00	11.44
	64/5320	12.00	11.49
802.11n-HT40 (MCS0)	54/5270	11.00	10.42
	62/5310	11.00	10.26
802.11ac-VHT20 (MCS0)	52/5260	12.00	11.74
	56/5280	12.00	11.53
	60/5300	12.00	11.45
	64/5320	12.00	11.39
802.11ac-VHT40 (MCS0)	54/5270	11.00	10.44
	62/5310	11.00	10.17
802.11ac-VHT80 (MCS0)	58/5290	11.50	11.44
Note. Initial test configuration is 802.11a mode, since the highest maximum output power.			

WWAN+WLAN Hotspot on-ANT7			
Wi-Fi 5G (U-NII-2C) Mode	Channel /Frequency(MHz)	Maximum Output Power (dBm)	
		Tune-up	Meas.
802.11a (6M)	100/5500	13.00	**12.38**
	116/5580	13.00	12.13
	132/5660	13.00	12.29
	140/5700	13.00	12.02

802.11n-HT20 (MCS0)	100/5500	11.40	10.58
	116/5580	11.40	10.82
	132/5660	11.40	11.01
	140/5700	11.40	9.43
802.11n-HT40 (MCS0)	102/5510	11.00	9.98
	110/5550	11.00	9.71
	118/5590	11.00	9.66
	134/5670	11.00	9.76
802.11ac-VHT20 (MCS0)	100/5500	12.00	11.28
	116/5580	12.00	10.86
	132/5660	12.00	11.06
	140/5700	12.00	10.92
802.11ac-VHT40 (MCS0)	102/5510	11.00	9.90
	110/5550	11.00	9.56
	118/5590	11.00	9.58
	134/5670	11.00	9.80
802.11ac-VHT80 (MCS0)	106/5530	11.50	10.82
	122/5610	11.50	10.60
Note. Initial test configuration is 802.11a mode, since the highest maximum output power.			

WWAN+WLAN Hotspot on-ANT7			
Wi-Fi 5G (U-NII-3)	Channel /Frequency(MHz)	Maximum Output Power (dBm)	
Mode		Tune-up	Meas.
802.11a (6M)	149/5745	13.00	**11.53**
	157/5785	13.00	11.34
	165/5825	13.00	11.22
802.11n-HT20 (MCS0)	149/5745	11.40	10.74
	157/5785	11.40	10.28
	165/5825	11.40	10.14
802.11n-HT40 (MCS0)	151/5755	11.00	9.40
	159/5795	11.00	9.02
802.11ac-VHT20 (MCS0)	149/5745	12.00	10.64
	157/5785	12.00	10.40
	165/5825	12.00	10.14
802.11ac-VHT40 (MCS0)	151/5755	11.00	9.28
	159/5795	11.00	9.02
802.11ac-VHT80 (MCS0)	155/5775	11.50	9.88
Note. Initial test configuration is 802.11a mode, since the highest maximum output power.			

9.6 Bluetooth Mode

Bluetooth	Conducted Power(dBm)					
	Channel/Frequency(MHz)					
	Ch 0/2402 MHz	Tune-up Limit (dBm)	Ch 39/2441 MHz	Tune-up Limit (dBm)	Ch 78/2480 MHz	Tune-up Limit (dBm)
GFSK	3.92	5.00	7.32	8.00	7.50	8.00
π/4DQPSK	1.56	3.00	4.15	6.00	4.70	6.00
8DPSK	1.71	3.00	4.29	6.00	4.82	6.00
BLE	Ch 0/2402 MHz	Tune-up Limit (dBm)	Ch 19/2440 MHz	Tune-up Limit (dBm)	Ch 39/2480 MHz	Tune-up Limit (dBm)
GFSK(1M)	-4.32	-2.50	-1.97	-1.00	-2.32	-1.00
GFSK(2M)	-5.95	-4.50	-3.66	-3.00	-4.02	-3.00

10 Measured and Reported (Scaled) SAR Results

10.1 EUT Antenna Locations

The Detailed Antenna Locations refer to *Antenna Locations.*

ANT 0: GSM 850/WCDMA 5/LTE 5/12/13/26/71/NR n5/n71
ANT 1: LTE 2/66
ANT 2: GSM 1900/WCDMA 2/4/LTE 2/4/25/48/66/NR n2/n25/ n48/ n66/n77
ANT 4: LTE 7/41/NR n30/n41
ANT 7: Wi-Fi 2.4G/5G/Bluetooth

Overall (Length x Width): 159.7 mm x 78.1 mm Overall Diagonal: 168 mm/Display Diagonal: 154mm						
Distance of the Antenna to the EUT Surface/Edge						
Antenna	Back Side	Front Side	Left Edge	Right Edge	Top Edge	Bottom Edge
ANT 0	＜25mm	＜25mm	＜25mm	＜25mm	＜25mm	＞25mm
ANT 1	＜25mm	＜25mm	＜25mm	＞25mm	＞25mm	＜25mm
ANT 2	＜25mm	＜25mm	＞25mm	＜25mm	＜25mm	＞25mm
ANT 4	＜25mm	＜25mm	＜25mm	＞25mm	＜25mm	＞25mm
ANT 7	＜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
ANT 0	Yes	Yes	Yes	Yes	Yes	N/A
ANT 1	Yes	Yes	Yes	N/A	N/A	Yes
ANT 2	Yes	Yes	N/A	Yes	Yes	N/A
ANT 4	Yes	Yes	Yes	N/A	Yes	N/A
ANT 7	Yes	Yes	Yes	Yes	Yes	N/A

Note:

1. Per KDB 941225 D06, when the overall device length and width are ≥ 9cm*5cm, the test distance is 10mm. SAR must be measured for all sides and surfaces with a transmitting antenna located within 25mm from that surface or edge.
2. For smart phones with an overall diagonal dimension is 168mm. 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 <1.2W/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.

10.2 Measured SAR Results

Note:

1. The value with blue color is the maximum SAR Value of each test band.
2. For GSM, when multiple slots are used, SAR should be tested to account for the maximum source-based time-averaged output power.
3. For WCDMA, When the maximum output power and tune-up tolerance specified for production units in a secondary mode is ≤ 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).

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 (Original)	ANT 0	Left cheek	0	GSM	Receiver on	-	-	190/836.6	32.00	30.81	0.681	0.090	1.32	0.896	/
			0	GSM	Receiver on	-	-	128/824.2	32.00	30.98	0.703	0.026	1.26	0.889	/
			0	GSM	Receiver on	-	-	251/848.8	32.00	31.03	0.708	0.019	1.25	0.885	/
		Left Tilt	0	GSM	Receiver on	-	-	190/836.6	32.00	30.81	0.715	-0.100	1.32	0.940	/
			0	GSM	Receiver on	-	-	128/824.2	32.00	30.98	0.625	-0.022	1.26	0.790	/
			0	GSM	Receiver on	-	-	251/848.8	32.00	31.03	0.687	0.051	1.25	0.859	/
		Right cheek	0	GSM	Receiver on	-	-	190/836.6	32.00	30.81	0.744	0.010	1.32	0.979	32
			0	GSM	Receiver on	-	-	128/824.2	32.00	30.98	0.652	0.049	1.26	0.825	/
			0	GSM	Receiver on	-	-	251/848.8	32.00	31.03	0.650	0.032	1.25	0.813	/
		Right Tilt	0	GSM	Receiver on	-	-	190/836.6	32.00	30.81	0.689	0.110	1.32	0.906	/
			0	GSM	Receiver on	-	-	128/824.2	32.00	30.98	0.681	0.049	1.26	0.861	/
			0	GSM	Receiver on	-	-	251/848.8	32.00	31.03	0.732	0.033	1.25	0.915	/
GSM 1900 (Original)	ANT2	Left cheek	0	GSM	Receiver on	-	-	661/1880	29.00	28.22	0.900	0.100	1.20	1.077	33
			0	GSM	Receiver on	-	-	512/1850.2	29.00	28.16	0.569	0.015	1.21	0.690	/
			0	GSM	Receiver on	-	-	810/1909.8	29.00	28.53	0.739	0.027	1.11	0.823	/
		Left cheek repeat	0	GSM	Receiver on	-	-	661/1880	29.00	28.22	0.892	0.040	1.20	1.067	/
		Left Tilt	0	GSM	Receiver on	-	-	661/1880	29.00	28.22	0.395	-0.020	1.20	0.473	/
		Right cheek	0	GSM	Receiver on	-	-	661/1880	29.00	28.22	0.373	0.022	1.20	0.446	/
		Right Tilt	0	GSM	Receiver on	-	-	661/1880	29.00	28.22	0.432	0.040	1.20	0.517	/
WCDMA II (Original)	ANT 2	Left cheek	0	RMC 12.2K	Receiver on	-	-	9400/1880	20.00	19.22	0.992	0.050	1.20	1.187	/
			0	RMC 12.2K	Receiver on	-	-	9262/1852.4	20.00	19.16	0.905	0.013	1.21	1.098	/
			0	RMC 12.2K	Receiver on	-	-	9538/1907.6	20.00	19.38	0.771	0.018	1.15	0.889	/
		Left cheek repeat	0	RMC 12.2K	Receiver on	-	-	9400/1880	20.00	19.22	1.020	-0.150	1.20	1.221	34
		Left Tilt	0	RMC 12.2K	Receiver on	-	-	9400/1880	20.00	19.22	0.422	0.040	1.20	0.505	/

		Right cheek	0	RMC 12.2K	Receiver on	-	-	9400/1880	20.00	19.22	0.437	0.077	1.20	0.523	/
		Right Tilt	0	RMC 12.2K	Receiver on	-	-	9400/1880	20.00	19.22	0.495	0.050	1.20	0.592	/
WCDMA IV (Original)	ANT 2	Left cheek	0	RMC 12.2K	Receiver on	-	-	1413/1732.6	21.30	20.38	0.811	0.022	1.24	1.002	/
			0	RMC 12.2K	Receiver on	-	-	1312/1712.4	21.30	20.50	0.767	-0.062	1.20	0.922	/
			0	RMC 12.2K	Receiver on	-	-	1513/1752.6	21.30	20.22	0.871	0.010	1.28	1.117	35
		Left cheek repeat	0	RMC 12.2K	Receiver on	-	-	1513/1752.6	21.30	20.22	0.852	0.018	1.28	1.093	/
		Left Tilt	0	RMC 12.2K	Receiver on	-	-	1413/1732.6	21.30	20.38	0.485	-0.030	1.24	0.599	/
		Right cheek	0	RMC 12.2K	Receiver on	-	-	1413/1732.6	21.30	20.38	0.381	0.020	1.24	0.471	/
		Right Tilt	0	RMC 12.2K	Receiver on	-	-	1413/1732.6	21.30	20.38	0.438	0.050	1.24	0.541	/
WCDMA V (Original)	ANT 0	Left cheek	0	RMC 12.2K	Receiver on	-	-	4183/836.6	24.00	22.96	0.899	-0.120	1.27	1.142	36
			0	RMC 12.2K	Receiver on	-	-	4132/826.4	24.00	23.02	0.819	0.049	1.25	1.026	/
			0	RMC 12.2K	Receiver on	-	-	4233/846.6	24.00	23.06	0.887	-0.025	1.24	1.101	/
		Left cheek repeat	0	RMC 12.2K	Receiver on	-	-	4183/836.6	24.00	22.96	0.867	0.041	1.27	1.102	/
		Left Tilt	0	RMC 12.2K	Receiver on	-	-	4183/836.6	24.00	22.96	0.768	-0.020	1.27	0.976	/
			0	RMC 12.2K	Receiver on	-	-	4132/826.4	24.00	23.02	0.669	0.010	1.25	0.838	/
			0	RMC 12.2K	Receiver on	-	-	4233/846.6	24.00	23.06	0.861	0.027	1.24	1.069	/
		Right cheek	0	RMC 12.2K	Receiver on	-	-	4183/836.6	24.00	22.96	0.854	-0.020	1.27	1.085	/
			0	RMC 12.2K	Receiver on	-	-	4132/826.4	24.00	23.02	0.769	0.090	1.25	0.964	/
			0	RMC 12.2K	Receiver on	-	-	4233/846.6	24.00	23.06	0.845	-0.012	1.24	1.049	/
		Right Tilt	0	RMC 12.2K	Receiver on	-	-	4183/836.6	24.00	22.96	0.604	-0.045	1.27	0.767	/
LTE 2 (Original)	ANT 2	Left cheek	0	QPSK	Receiver on	1	50	18900/1880	19.50	19.16	0.855	0.020	1.08	0.925	/
			0	QPSK	Receiver on	1	50	18700/1860	19.50	19.07	1.080	0.040	1.10	1.192	37
			0	QPSK	Receiver on	1	50	19100/1900	19.50	19.13	0.762	0.060	1.09	0.830	/
			0	QPSK	Receiver on	50%	25	19100/1900	19.50	19.17	0.917	0.060	1.08	0.989	/
			0	QPSK	Receiver on	50%	0	18700/1860	19.50	19.10	0.832	-0.042	1.10	0.912	/
			0	QPSK	Receiver on	50%	25	18900/1880	19.50	19.12	0.864	0.022	1.09	0.943	/
			0	QPSK	Receiver on	100%	0	18900/1880	19.50	19.06	1.050	0.050	1.11	1.162	/
			0	QPSK	Receiver on	100%	0	18700/1860	19.50	19.05	0.926	0.017	1.11	1.027	/
			0	QPSK	Receiver on	100%	0	19100/1900	19.50	19.05	0.937	0.030	1.11	1.039	/
		Left cheek repeat	0	QPSK	Receiver on	1	50	18700/1860	19.50	19.07	0.992	0.015	1.10	1.095	/
		Left Tilt	0	QPSK	Receiver on	1	50	18900/1880	19.50	19.16	0.426	0.030	1.08	0.461	/
			0	QPSK	Receiver on	50%	25	19100/1900	19.50	19.17	0.368	0.020	1.08	0.397	/
		Right cheek	0	QPSK	Receiver on	1	50	18900/1880	19.50	19.16	0.448	0.010	1.08	0.484	/
			0	QPSK	Receiver on	50%	25	19100/1900	19.50	19.17	0.391	0.030	1.08	0.422	/
		Right Tilt	0	QPSK	Receiver on	1	50	18900/1880	19.50	19.16	0.458	-0.050	1.08	0.495	/
			0	QPSK	Receiver on	50%	25	19100/1900	19.50	19.17	0.392	0.010	1.08	0.423	/
	ANT 1	Left cheek	0	QPSK	Receiver on	1	50	18700/1860	23.30	22.71	0.185	0.073	1.15	0.212	/
			0	QPSK	Receiver on	50%	0	18700/1860	22.30	21.70	0.083	0.081	1.15	0.095	/
		Left Tilt	0	QPSK	Receiver on	1	50	18700/1860	23.30	22.71	0.140	0.060	1.15	0.160	/
			0	QPSK	Receiver on	50%	0	18700/1860	22.30	21.70	0.064	0.019	1.15	0.073	/

		Right cheek	0	QPSK	Receiver on	1	50	18700/1860	23.30	22.71	0.129	0.044	1.15	0.148	/
			0	QPSK	Receiver on	50%	0	18700/1860	22.30	21.70	0.056	0.038	1.15	0.064	/
		Right Tilt	0	QPSK	Receiver on	1	50	18700/1860	23.30	22.71	0.160	-0.090	1.15	0.183	/
			0	QPSK	Receiver on	50%	0	18700/1860	22.30	21.70	0.063	0.160	1.15	0.072	/
LTE 4 (Original)	ANT 2	Left cheek	0	QPSK	Receiver on	1	0	20175/1732.5	21.50	20.62	0.754	0.020	1.22	0.923	/
			0	QPSK	Receiver on	1	0	20050/1720	21.50	20.58	0.661	0.050	1.24	0.817	/
			0	QPSK	Receiver on	1	0	20300/1745	21.50	20.56	0.793	0.050	1.24	0.985	/
			0	QPSK	Receiver on	50%	0	20050/1720	21.50	20.70	0.698	-0.190	1.20	0.839	/
			0	QPSK	Receiver on	50%	0	20175/1732.5	21.50	20.64	0.772	0.090	1.22	0.941	/
			0	QPSK	Receiver on	50%	25	20300/1745	21.50	20.53	0.844	0.060	1.25	1.055	/
			0	QPSK	Receiver on	100%	0	20175/1732.5	21.50	20.59	0.920	0.100	1.23	1.134	38
			0	QPSK	Receiver on	100%	0	20050/1720	21.50	20.59	0.889	0.019	1.23	1.096	/
			0	QPSK	Receiver on	100%	0	20300/1745	21.50	20.47	0.872	-0.044	1.27	1.105	/
		Left cheek repeat	0	QPSK	Receiver on	100%	0	20175/1732.5	21.50	20.59	0.906	0.023	1.23	1.117	/
		Left Tilt	0	QPSK	Receiver on	1	0	20175/1732.5	21.50	20.62	0.416	0.095	1.22	0.509	/
			0	QPSK	Receiver on	50%	0	20050/1720	21.50	20.70	0.363	0.040	1.20	0.436	/
		Right cheek	0	QPSK	Receiver on	1	0	20175/1732.5	21.50	20.62	0.354	-0.026	1.22	0.434	/
			0	QPSK	Receiver on	50%	0	20050/1720	21.50	20.70	0.323	-0.010	1.20	0.388	/
		Right Tilt	0	QPSK	Receiver on	1	0	20175/1732.5	21.50	20.62	0.325	0.020	1.22	0.398	/
			0	QPSK	Receiver on	50%	0	20050/1720	21.50	20.70	0.319	0.080	1.20	0.384	/
LTE 5 (Original)	ANT 0	Left cheek	0	QPSK	Receiver on	1	25	20525/836.5	24.50	23.43	0.920	0.080	1.28	1.177	39
			0	QPSK	Receiver on	1	25	20450/829	24.50	23.41	0.711	-0.120	1.29	0.914	/
			0	QPSK	Receiver on	1	0	20600/844	24.50	23.35	0.786	0.090	1.30	1.024	/
			0	QPSK	Receiver on	50%	0	20525/836.5	23.50	22.43	0.708	-0.060	1.28	0.906	/
			0	QPSK	Receiver on	50%	13	20450/829	23.50	22.40	0.549	0.110	1.29	0.707	/
			0	QPSK	Receiver on	50%	0	20600/844	23.50	22.40	0.633	-0.010	1.29	0.815	/
			0	QPSK	Receiver on	100%	0	20450/829	23.50	22.43	0.567	0.060	1.28	0.725	/
		Left cheek repeat	0	QPSK	Receiver on	1	25	20525/836.5	24.50	23.43	0.872	0.033	1.28	1.116	/
		Left Tilt	0	QPSK	Receiver on	1	25	20525/836.5	24.50	23.43	0.712	0.010	1.28	0.911	/
			0	QPSK	Receiver on	1	25	20450/829	24.50	23.41	0.640	-0.100	1.29	0.823	/
			0	QPSK	Receiver on	1	0	20600/844	24.50	23.35	0.749	0.020	1.30	0.976	/
			0	QPSK	Receiver on	50%	0	20525/836.5	23.50	22.43	0.562	-0.040	1.28	0.719	/
		Right cheek	0	QPSK	Receiver on	1	25	20525/836.5	24.50	23.43	0.597	-0.040	1.28	0.764	/
			0	QPSK	Receiver on	50%	0	20525/836.5	23.50	22.43	0.471	0.000	1.28	0.603	/
		Right Tilt	0	QPSK	Receiver on	1	25	20525/836.5	24.50	23.43	0.842	-0.020	1.28	1.077	/
			0	QPSK	Receiver on	1	25	20450/829	24.50	23.41	0.717	0.130	1.29	0.922	/
			0	QPSK	Receiver on	1	0	20600/844	24.50	23.35	0.839	0.080	1.30	1.093	/
			0	QPSK	Receiver on	50%	0	20525/836.5	23.50	22.43	0.713	0.010	1.28	0.912	/
			0	QPSK	Receiver on	50%	13	20450/829	23.50	22.40	0.558	0.040	1.29	0.719	/
			0	QPSK	Receiver on	50%	0	20600/844	23.50	22.40	0.669	-0.096	1.29	0.862	/
LTE 7	ANT 4	Left cheek	0	QPSK	Receiver on	1	99	21350/2560	22.50	21.48	0.290	-0.010	1.26	0.367	/

(Original)			0	QPSK	Receiver on	50%	25	21100/2535	22.50	21.55	0.526	0.040	1.24	0.655	/
		Left Tilt	0	QPSK	Receiver on	1	99	21350/2560	22.50	21.48	0.178	0.150	1.26	0.225	/
			0	QPSK	Receiver on	50%	25	21100/2535	22.50	21.55	0.164	0.021	1.24	0.204	/
		Right cheek	0	QPSK	Receiver on	1	99	21350/2560	22.50	21.48	0.854	0.049	1.26	1.080	40
			0	QPSK	Receiver on	1	50	20850/2510	22.50	21.34	0.774	-0.060	1.31	1.011	/
			0	QPSK	Receiver on	1	50	21100/2535	22.50	21.47	0.826	0.020	1.27	1.047	/
			0	QPSK	Receiver on	50%	25	21100/2535	22.50	21.55	0.845	0.036	1.24	1.052	/
			0	QPSK	Receiver on	50%	50	20850/2510	22.50	21.42	0.758	0.024	1.28	0.972	/
			0	QPSK	Receiver on	50%	0	21350/2560	22.50	21.52	0.789	0.030	1.25	0.989	/
			0	QPSK	Receiver on	100%	0	21350/2560	22.50	21.52	0.769	0.028	1.25	0.964	/
			0	QPSK	Receiver on	100%		20850/2510	22.50	21.34	0.795	0.024	1.31	1.038	/
			0	QPSK	Receiver on	100%		21100/2535	22.50	21.48	0.737	0.110	1.26	0.932	/
		Right cheek repeat	0	QPSK	Receiver on	1	99	21350/2560	22.50	21.48	0.827	0.046	1.26	1.046	/
		Right Tilt	0	QPSK	Receiver on	1	99	21350/2560	22.50	21.48	0.349	0.140	1.26	0.441	/
			0	QPSK	Receiver on	50%	25	21100/2535	22.50	21.55	0.389	0.031	1.24	0.484	/
LTE 12 (Original)	ANT 0	Left cheek	0	QPSK	Receiver on	1	49	23130/711	24.50	23.80	0.674	-0.060	1.17	0.792	41
			0	QPSK	Receiver on	50%	25	23095/707.5	23.50	22.78	0.578	-0.090	1.18	0.682	/
		Left Tilt	0	QPSK	Receiver on	1	49	23130/711	24.50	23.80	0.592	-0.120	1.17	0.696	/
			0	QPSK	Receiver on	50%	25	23095/707.5	23.50	22.78	0.499	0.050	1.18	0.589	/
		Right cheek	0	QPSK	Receiver on	1	49	23130/711	24.50	23.80	0.558	-0.047	1.17	0.656	/
			0	QPSK	Receiver on	50%	25	23095/707.5	23.50	22.78	0.505	-0.040	1.18	0.596	/
		Right Tilt	0	QPSK	Receiver on	1	49	23130/711	24.50	23.80	0.536	-0.120	1.17	0.630	/
			0	QPSK	Receiver on	50%	25	23095/707.5	23.50	22.78	0.469	0.060	1.18	0.554	/
LTE 13 (Original)	ANT 0	Left cheek	0	QPSK	Receiver on	1	25	23230/782	24.00	22.83	0.772	0.180	1.31	1.011	42
			0	QPSK	Receiver on	50%	25	23230/782	23.00	21.87	0.579	0.080	1.30	0.751	/
			0	QPSK	Receiver on	100%	0	23230/782	23.00	21.87	0.497	0.090	1.30	0.645	/
		Left Tilt	0	QPSK	Receiver on	1	25	23230/782	24.00	22.83	0.539	-0.030	1.31	0.706	/
			0	QPSK	Receiver on	50%	25	23230/782	23.00	21.87	0.420	0.110	1.30	0.545	/
		Right cheek	0	QPSK	Receiver on	1	25	23230/782	24.00	22.83	0.558	-0.010	1.31	0.731	/
			0	QPSK	Receiver on	50%	25	23230/782	23.00	21.87	0.469	-0.070	1.30	0.608	/
		Right Tilt	0	QPSK	Receiver on	1	25	23230/782	24.00	22.83	0.543	-0.030	1.31	0.711	/
			0	QPSK	Receiver on	50%	25	23230/782	23.00	21.87	0.457	0.040	1.30	0.593	/
LTE 25 (Original)	ANT 2	Left cheek	0	QPSK	Receiver on	1	50	26365/1882.5	22.00	21.18	0.741	-0.021	1.21	0.895	/
			0	QPSK	Receiver on	1	50	26140/1860	22.00	21.01	1.050	0.022	1.26	1.319	/
			0	QPSK	Receiver on	1	99	26590/1905	22.00	21.18	0.848	0.040	1.21	1.024	/
			0	QPSK	Receiver on	50%	0	26590/1905	22.00	21.31	0.820	0.060	1.17	0.961	/
			0	QPSK	Receiver on	50%	0	26140/1860	22.00	21.09	1.060	0.030	1.23	1.307	43
			0	QPSK	Receiver on	50%	0	26365/1882,5	22.00	21.27	1.010	0.010	1.18	1.195	/
			0	QPSK	Receiver on	100%	0	26590/1905	22.00	21.32	0.869	0.030	1.17	1.016	/
			0	QPSK	Receiver on	100%	0	26140/1860	22.00	21.01	0.923	0.026	1.26	1.159	/
			0	QPSK	Receiver on	100%	0	26365/1882,5	22.00	21.27	0.886	0.038	1.18	1.048	/
		Left cheek	0	QPSK	Receiver on	1	50	26140/1860	22.00	21.01	0.986	0.024	1.26	1.238	/

		repeat													
		Left Tilt	0	QPSK	Receiver on	1	50	26365/1882.5	22.00	21.18	0.356	-0.090	1.21	0.430	/
			0	QPSK	Receiver on	50%	0	26590/1905	22.00	21.31	0.366	0.070	1.17	0.429	/
		Right cheek	0	QPSK	Receiver on	1	50	26365/1882.5	22.00	21.18	0.362	0.070	1.21	0.437	/
			0	QPSK	Receiver on	50%	0	26590/1905	22.00	21.31	0.351	0.050	1.17	0.411	/
		Right Tilt	0	QPSK	Receiver on	1	50	26365/1882.5	22.00	21.18	0.354	-0.040	1.21	0.428	/
			0	QPSK	Receiver on	50%	0	26590/1905	22.00	21.31	0.314	0.030	1.17	0.368	/
LTE 26 (Original)	ANT 0	Left cheek	0	QPSK	Receiver on	1	38	26865/831.5	24.50	23.44	0.837	0.190	1.28	1.068	/
			0	QPSK	Receiver on	1	38	26765/821.5	24.50	23.36	0.703	-0.120	1.30	0.914	/
			0	QPSK	Receiver on	1	38	26965/841.5	24.50	23.37	0.856	-0.040	1.30	1.110	44
			0	QPSK	Receiver on	50%	18	26865/831.5	23.50	22.44	0.663	0.030	1.28	0.846	/
			0	QPSK	Receiver on	50%	18	26765/821.5	23.50	22.37	0.564	-0.030	1.30	0.732	/
			0	QPSK	Receiver on	50%	18	26965/841.5	23.50	22.37	0.690	0.050	1.30	0.895	/
			0	QPSK	Receiver on	100%	0	26865/831.5	23.50	22.43	0.640	-0.040	1.28	0.819	/
		Left Tilt	0	QPSK	Receiver on	1	38	26865/831.5	24.50	23.44	0.747	0.080	1.28	0.953	/
			0	QPSK	Receiver on	1	38	26765/821.5	24.50	23.36	0.621	-0.078	1.30	0.807	/
			0	QPSK	Receiver on	1	38	26965/841.5	24.50	23.37	0.768	-0.090	1.30	0.996	/
			0	QPSK	Receiver on	50%	18	26865/831.5	23.50	22.44	0.584	0.000	1.28	0.745	/
		Right cheek	0	QPSK	Receiver on	1	38	26865/831.5	24.50	23.44	0.824	0.070	1.28	1.052	/
			0	QPSK	Receiver on	1	38	26765/821.5	24.50	23.36	0.726	0.070	1.30	0.944	/
			0	QPSK	Receiver on	1	38	26965/841.5	24.50	23.37	0.825	0.070	1.30	1.070	/
			0	QPSK	Receiver on	50%	18	26865/831.5	23.50	22.44	0.640	-0.100	1.28	0.817	/
			0	QPSK	Receiver on	50%	18	26765/821.5	23.50	22.37	0.581	0.080	1.30	0.754	/
			0	QPSK	Receiver on	50%	18	26965/841.5	23.50	22.37	0.676	0.050	1.30	0.877	/
		Right Tilt	0	QPSK	Receiver on	1	38	26865/831.5	24.50	23.44	0.695	-0.036	1.28	0.887	/
			0	QPSK	Receiver on	1	38	26765/821.5	24.50	23.36	0.643	0.000	1.30	0.836	/
			0	QPSK	Receiver on	1	38	26965/841.5	24.50	23.37	0.827	0.030	1.30	1.073	/
			0	QPSK	Receiver on	50%	18	26865/831.5	23.50	22.44	0.594	0.140	1.28	0.758	/
LTE 41 Power Class 3 (Original)	ANT 4	Left cheek	0	QPSK	Receiver on	1	99	41055/2636.5	23.00	21.92	0.289	0.040	1.28	0.371	/
			0	QPSK	Receiver on	50%	25	41055/2636.5	23.00	21.93	0.305	-0.160	1.28	0.390	/
		Left Tilt	0	QPSK	Receiver on	1	99	41055/2636.5	23.00	21.92	0.142	0.030	1.28	0.182	/
			0	QPSK	Receiver on	50%	25	41055/2636.5	23.00	21.93	0.148	0.050	1.28	0.189	/
		Right cheek	0	QPSK	Receiver on	1	99	41055/2636.5	23.00	21.92	0.602	0.011	1.28	0.772	/
			0	QPSK	Receiver on	50%	25	41055/2636.5	23.00	21.93	0.637	0.031	1.28	0.815	/
			0	QPSK	Receiver on	50%	50	39750/2506	23.00	21.73	0.432	0.033	1.34	0.579	/
			0	QPSK	Receiver on	50%	25	41490/2680	23.00	21.92	0.418	0.024	1.28	0.536	/
			0	QPSK	Receiver on	100%	0	41490/2680	23.00	21.92	0.409	0.015	1.28	0.524	/
		Right Tilt	0	QPSK	Receiver on	1	99	41055/2636.5	23.00	21.92	0.305	-0.070	1.28	0.391	/
			0	QPSK	Receiver on	50%	25	41055/2636.5	23.00	21.93	0.322	-0.010	1.28	0.412	/
LTE 41 Power Class 2 (Original)	ANT 4	Left cheek	0	QPSK	Receiver on	1	99	41055/2636.5	25.50	24.77	0.422	0.020	1.18	0.499	/
			0	QPSK	Receiver on	50%	25	41055/2636.5	25.50	24.77	0.448	-0.010	1.18	0.530	/
		Left Tilt	0	QPSK	Receiver on	1	99	41055/2636.5	25.50	24.77	0.197	0.050	1.18	0.233	/
			0	QPSK	Receiver on	50%	25	41055/2636.5	25.50	24.77	0.206	0.060	1.18	0.244	/

		Right cheek	0	QPSK	Receiver on	1	99	41055/2636.5	25.50	24.77	0.791	-0.020	1.18	0.936	/
			0	QPSK	Receiver on	1	99	40620/2593	25.50	24.66	0.476	-0.010	1.21	0.578	/
			0	QPSK	Receiver on	1	50	41490/2680	25.50	24.73	0.539	0.025	1.19	0.644	/
			0	QPSK	Receiver on	50%	25	41055/2636.5	25.50	24.77	0.869	0.024	1.18	1.028	45
			0	QPSK	Receiver on	50%	25	40620/2593	25.50	24.63	0.528	0.014	1.22	0.645	/
			0	QPSK	Receiver on	50%	50	41490/2680	25.50	24.73	0.548	0.100	1.19	0.654	/
			0	QPSK	Receiver on	100%	0	41055/2636.5	25.50	24.73	0.555	0.020	1.19	0.663	/
		Right cheek repeat	0	QPSK	Receiver on	50%	25	41055/2636.5	25.50	24.77	0.732	0.048	1.18	0.866	/
		Right Tilt	0	QPSK	Receiver on	1	99	41055/2636.5	25.50	24.77	0.382	-0.020	1.18	0.452	/
			0	QPSK	Receiver on	50%	25	41055/2636.5	25.50	24.77	0.397	-0.010	1.18	0.470	/
LTE 48 (Original)	ANT 2	Left cheek	0	QPSK	Receiver on	1	99	56340/3660	20.50	19.57	0.138	0.020	1.24	0.171	/
			0	QPSK	Receiver on	50%	50	56490/3675	20.50	19.55	0.128	0.130	1.24	0.159	/
		Left Tilt	0	QPSK	Receiver on	1	99	56340/3660	20.50	19.57	0.241	0.010	1.24	0.299	46
			0	QPSK	Receiver on	50%	50	56490/3675	20.50	19.55	0.224	0.130	1.24	0.279	/
		Right cheek	0	QPSK	Receiver on	1	99	56340/3660	20.50	19.57	0.065	0.150	1.24	0.081	/
			0	QPSK	Receiver on	50%	50	56490/3675	20.50	19.55	0.060	-0.033	1.24	0.075	/
		Right Tilt	0	QPSK	Receiver on	1	99	56340/3660	20.50	19.57	0.090	-0.060	1.24	0.111	/
			0	QPSK	Receiver on	50%	50	56490/3675	20.50	19.55	0.078	0.027	1.24	0.097	/
LTE 66 (Original)	ANT 2	Left cheek	0	QPSK	Receiver on	1	0	132072/1720	21.50	20.70	0.756	0.120	1.20	0.909	/
			0	QPSK	Receiver on	1	0	132322/1745	21.50	20.60	0.936	0.070	1.23	1.152	/
			0	QPSK	Receiver on	1	50	132572/1770	21.50	20.53	1.080	0.070	1.25	1.350	47
			0	QPSK	Receiver on	50%	0	132072/1720	21.50	20.81	0.637	0.090	1.17	0.747	/
			0	QPSK	Receiver on	100%	0	132322/1745	21.50	20.52	0.935	-0.041	1.25	1.172	/
			0	QPSK	Receiver on	100%	0	132572/1770	21.50	20.60	0.912	0.026	1.23	1.122	/
			0	QPSK	Receiver on	100%	0	132072/1720	21.50	20.74	0.861	0.022	1.19	1.026	/
		Left cheek repeat	0	QPSK	Receiver on	1	50	132572/1770	21.50	20.53	1.020	0.070	1.25	1.275	/
		Left Tilt	0	QPSK	Receiver on	1	0	132072/1720	21.50	20.70	0.359	0.050	1.20	0.432	/
			0	QPSK	Receiver on	50%	0	132072/1720	21.50	20.81	0.326	0.050	1.17	0.382	/
		Right cheek	0	QPSK	Receiver on	1	0	132072/1720	21.50	20.70	0.363	0.040	1.20	0.436	/
			0	QPSK	Receiver on	50%	0	132072/1720	21.50	20.81	0.288	0.040	1.17	0.338	/
		Right Tilt	0	QPSK	Receiver on	1	0	132072/1720	21.50	20.70	0.338	0.070	1.20	0.406	/
			0	QPSK	Receiver on	50%	0	132072/1720	21.50	20.81	0.268	0.030	1.17	0.314	/
	ANT 1	Left cheek	0	QPSK	Receiver on	1	50	132572/1770	23.30	22.27	0.172	0.029	1.27	0.218	/
			0	QPSK	Receiver on	50%	50	132572/1770	22.30	21.34	0.151	0.180	1.25	0.188	/
		Left Tilt	0	QPSK	Receiver on	1	50	132572/1770	23.30	22.27	0.085	0.034	1.27	0.108	/
			0	QPSK	Receiver on	50%	50	132572/1770	22.30	21.34	0.072	0.040	1.25	0.090	/
		Right cheek	0	QPSK	Receiver on	1	50	132572/1770	23.30	22.27	0.123	0.130	1.27	0.156	/
			0	QPSK	Receiver on	50%	50	132572/1770	22.30	21.34	0.094	0.040	1.25	0.117	/
		Right Tilt	0	QPSK	Receiver on	1	50	132572/1770	23.30	22.27	0.095	0.110	1.27	0.120	/
			0	QPSK	Receiver on	50%	50	132572/1770	22.30	21.34	0.083	0.034	1.25	0.103	/
LTE 66	ANT 2	Left cheek	0	QPSK	Receiver on	1	50	132572/1770	21.50	20.53	0.924	0.018	1.25	1.155	/

(Variant)		SIM2													
LTE 71 (Original)	ANT 0	Left cheek	0	QPSK	Receiver on	1	50	133222/673	24.50	23.77	0.596	-0.010	1.18	0.705	48
			0	QPSK	Receiver on	50%	50	133222/673	23.50	22.76	0.483	0.140	1.19	0.573	/
		Left Tilt	0	QPSK	Receiver on	1	50	133222/673	24.50	23.77	0.471	0.010	1.18	0.557	/
			0	QPSK	Receiver on	50%	50	133222/673	23.50	22.76	0.379	-0.089	1.19	0.449	/
		Right cheek	0	QPSK	Receiver on	1	50	133222/673	24.50	23.77	0.423	-0.025	1.18	0.500	/
			0	QPSK	Receiver on	50%	50	133222/673	23.50	22.76	0.367	0.000	1.19	0.435	/
		Right Tilt	0	QPSK	Receiver on	1	50	133222/673	24.50	23.77	0.519	-0.080	1.18	0.614	/
			0	QPSK	Receiver on	50%	50	133222/673	23.50	22.76	0.416	0.180	1.19	0.493	/

Band	Antenna	Test Position	Dist. (mm)	Type	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.
NR n2 (Original)	ANT 2	Left cheek	0	NSA	DFT-s-OFDM QPSK	Receiver on	1	104	372000/1860	19.00	18.04	0.579	-0.052	1.25	0.722	49
			0			Receiver on	50%	25	376000/1880	19.00	18.14	0.536	0.020	1.22	0.653	/
		Left Tilt	0			Receiver on	1	104	372000/1860	19.00	18.04	0.238	-0.030	1.25	0.297	/
			0			Receiver on	50%	25	376000/1880	19.00	18.14	0.244	0.030	1.22	0.297	/
		Right cheek	0			Receiver on	1	104	372000/1860	19.00	18.04	0.285	0.040	1.25	0.356	/
			0			Receiver on	50%	25	376000/1880	19.00	18.14	0.282	0.110	1.22	0.344	/
		Right Tilt	0			Receiver on	1	104	372000/1860	19.00	18.04	0.252	-0.120	1.25	0.314	/
			0			Receiver on	50%	25	376000/1880	19.00	18.14	0.249	0.030	1.22	0.304	/
NR n5 (Original)	ANT 0	Left cheek	0	NSA	DFT-s-OFDM QPSK	Receiver on	1	1	167800/839	21.00	20.09	0.468	-0.080	1.23	0.577	/
			0			Receiver on	50%	25	167800/839	21.00	20.27	0.502	0.026	1.18	0.594	/
		Left Tilt	0			Receiver on	1	1	167800/839	21.00	20.09	0.369	-0.080	1.23	0.455	/
			0			Receiver on	50%	25	167800/839	21.00	20.27	0.411	-0.070	1.18	0.486	/
		Right cheek	0			Receiver on	1	1	167800/839	21.00	20.09	0.377	0.100	1.23	0.465	/
			0			Receiver on	50%	25	167800/839	21.00	20.27	0.409	0.010	1.18	0.484	/
		Right Tilt	0			Receiver on	1	1	167800/839	21.00	20.09	0.364	0.130	1.23	0.449	/
			0			Receiver on	50%	25	167800/839	21.00	20.27	0.359	-0.010	1.18	0.424	/
NR n5 (Variant)	ANT 0	Left cheek	0	SA	DFT-s-OFDM QPSK	Receiver on	1	104	167800/839	22.50	22.04	0.776	0.039	1.11	0.863	50
			0			Receiver on	1	104	166800/834	22.50	21.90	0.751	-0.020	1.15	0.862	/
			0			Receiver on	1	104	167300/836.5	22.50	21.97	0.762	-0.010	1.13	0.861	/
			0			Receiver on	50%	25	167300/836.5	22.50	22.07	0.571	0.047	1.10	0.630	/
			0			Receiver on	100%	0	166800/834	22.50	22.05	0.714	0.040	1.11	0.792	/
		Left Tilt	0			Receiver on	1	104	167800/839	22.50	22.04	0.635	0.086	1.11	0.706	/
			0			Receiver on	50%	25	167300/836.5	22.50	22.07	0.536	0.073	1.10	0.592	/
		Right cheek	0			Receiver on	1	104	167800/839	22.50	22.04	0.739	-0.190	1.11	0.822	/
			0			Receiver on	1	104	166800/834	22.50	21.90	0.629	0.030	1.15	0.722	/
			0			Receiver on	1	104	167300/836.5	22.50	21.97	0.559	0.040	1.13	0.632	/
			0			Receiver on	50%	25	167300/836.5	22.50	22.07	0.625	0.071	1.10	0.690	/
		Right Tilt	0			Receiver on	1	104	167800/839	22.50	22.04	0.717	0.029	1.11	0.797	/
			0			Receiver on	50%	25	167300/836.5	22.50	22.07	0.623	0.075	1.10	0.688	/
NR n25	ANT 2	Left cheek	0	SA&	DFT-s-	Receiver on	1	104	372000/1860	19.00	18.14	0.588	0.110	1.22	0.717	/

(Original)			0	NSA	OFDM QPSK	Receiver on	50%	25	372000/1860	19.00	18.18	0.589	-0.040	1.21	0.711	51
		Left Tilt	0			Receiver on	1	104	372000/1860	19.00	18.14	0.325	-0.021	1.22	0.396	/
			0			Receiver on	50%	25	372000/1860	19.00	18.18	0.350	0.030	1.21	0.423	/
		Right cheek	0			Receiver on	1	104	372000/1860	19.00	18.14	0.281	-0.023	1.22	0.343	/
			0			Receiver on	50%	25	372000/1860	19.00	18.18	0.255	0.047	1.21	0.308	/
		Right Tilt	0			Receiver on	1	104	372000/1860	19.00	18.14	0.270	0.086	1.22	0.329	/
			0			Receiver on	50%	25	372000/1860	19.00	18.18	0.273	0.046	1.21	0.330	/
NR n30 (Original)	ANT 4	Left cheek	0	NSA	DFT-s-OFDM QPSK	Receiver on	1	1	462000/2310	21.00	19.97	0.207	0.036	1.27	0.262	/
			0			Receiver on	50%	12	462000/2310	21.00	20.02	0.172	0.025	1.25	0.216	/
		Left Tilt	0			Receiver on	1	1	462000/2310	21.00	19.97	0.111	0.062	1.27	0.141	/
			0			Receiver on	50%	12	462000/2310	21.00	20.02	0.113	0.015	1.25	0.142	/
		Right cheek	0			Receiver on	1	1	462000/2310	21.00	19.97	0.516	0.033	1.27	0.654	52
			0			Receiver on	50%	12	462000/2310	21.00	20.02	0.476	-0.140	1.25	0.596	/
		Right Tilt	0			Receiver on	1	1	462000/2310	21.00	19.97	0.186	0.015	1.27	0.236	/
			0			Receiver on	50%	12	462000/2310	21.00	20.02	0.189	0.075	1.25	0.237	/
NR n41 Power Class 2 (Original)	ANT 4	Left cheek	0	SA& NSA	DFT-s-OFDM QPSK	Receiver on	1	1	509202/2546.01	21.00	19.17	0.278	0.063	1.52	0.424	/
			0			Receiver on	50%	67	509202/2546.01	21.00	19.66	0.282	0.052	1.36	0.384	/
		Left Tilt	0			Receiver on	1	1	509202/2546.01	21.00	19.17	0.114	0.012	1.52	0.174	/
			0			Receiver on	50%	67	509202/2546.01	21.00	19.66	0.153	0.042	1.36	0.208	/
		Right cheek	0			Receiver on	1	1	509202/2546.01	21.00	19.17	0.509	0.028	1.52	0.776	53
			0			Receiver on	50%	67	509202/2546.01	21.00	19.66	0.487	0.053	1.36	0.663	/
		Right Tilt	0			Receiver on	1	1	509202/2546.01	21.00	19.17	0.232	0.130	1.52	0.354	/
			0			Receiver on	50%	67	509202/2546.01	21.00	19.66	0.256	0.014	1.36	0.349	/
NR n48 (Variant)	Main ANT2	Left cheek	0	SA	DFT-s-OFDM QPSK	Receiver on	1	1	643332/3649.98	18.00	16.87	0.188	0.100	1.30	0.244	/
			0			Receiver on	50%	67	640000/3600	18.00	17.47	0.218	-0.080	1.13	0.246	/
		Left Tilt	0			Receiver on	1	1	643332/3649.98	18.00	16.87	0.296	-0.030	1.30	0.384	/
			0			Receiver on	50%	67	640000/3600	18.00	17.47	0.364	0.076	1.13	0.411	54
		Right cheek	0			Receiver on	1	1	643332/3649.98	18.00	16.87	0.117	-0.080	1.30	0.152	/
			0			Receiver on	50%	67	640000/3600	18.00	17.47	0.131	-0.070	1.13	0.148	/
		Right Tilt	0			Receiver on	1	1	643332/3649.98	18.00	16.87	0.175	-0.050	1.30	0.227	/
			0			Receiver on	50%	67	640000/3600	18.00	17.47	0.203	-0.020	1.13	0.229	/
NR n66 (Original)	ANT 2	Left cheek	0	SA	DFT-s-OFDM QPSK	Receiver on	1	1	346000/1730	21.00	19.83	0.571	-0.052	1.31	0.748	/
			0			Receiver on	50%	54	349000/1745	21.00	20.12	0.899	-0.025	1.22	1.101	/
			0			Receiver on	50%	54	346000/1730	21.00	19.94	0.652	0.060	1.28	0.832	/
			0			Receiver on	50%	54	352000/1760	21.00	19.98	0.991	0.080	1.26	1.253	/
			0			Receiver on	100%	0	349000/1745	21.00	19.97	0.981	0.060	1.27	1.244	/
			0			Receiver on	100%	0	346000/1730	21.00	19.76	0.885	-0.022	1.33	1.177	/
			0			Receiver on	100%	0	352000/1760	21.00	19.80	0.847	0.049	1.32	1.117	/
		Left cheek repeat	0			Receiver on	50%	54	352000/1760	21.00	19.98	1.020	-0.100	1.26	1.290	55
		Left Tilt	0			Receiver on	1	1	346000/1730	21.00	19.83	0.383	0.033	1.31	0.501	/
			0			Receiver on	50%	54	349000/1745	21.00	20.12	0.576	0.028	1.22	0.705	/
		Right	0			Receiver on	1	1	346000/1730	21.00	19.83	0.461	0.190	1.31	0.604	/

		cheek	0			Receiver on	50%	54	349000/1745	21.00	20.12	0.453	0.082	1.22	0.555	/
		Right Tilt	0			Receiver on	1	1	346000/1730	21.00	19.83	0.354	0.042	1.31	0.463	/
			0			Receiver on	50%	54	349000/1745	21.00	20.12	0.542	0.041	1.22	0.664	/
		Left cheek	0		CP-OFDM QPSK	Receiver on	1	1	352000/1760	21.00	19.76	0.865	0.015	1.33	1.151	/
	ANT 2	Left cheek	0	NSA	DFT-s-OFDM QPSK	Receiver on	1	1	349000/1745	19.00	18.01	0.386	-0.190	1.26	0.485	/
			0			Receiver on	50%	54	349000/1745	19.00	18.30	0.471	0.060	1.17	0.553	/
		Left Tilt	0			Receiver on	1	1	349000/1745	19.00	18.01	0.258	0.059	1.26	0.324	/
			0			Receiver on	50%	54	349000/1745	19.00	18.30	0.302	0.041	1.17	0.355	/
		Right cheek	0			Receiver on	1	1	349000/1745	19.00	18.01	0.217	-0.140	1.26	0.273	/
			0			Receiver on	50%	54	349000/1745	19.00	18.30	0.246	-0.049	1.17	0.289	/
		Right Tilt	0			Receiver on	1	1	349000/1745	19.00	18.01	0.263	0.085	1.26	0.330	/
			0			Receiver on	50%	54	349000/1745	19.00	18.30	0.292	0.028	1.17	0.343	/
NR n71 (Original)	ANT 0	Left cheek	0	SA& NSA	DFT-s-OFDM QPSK	Receiver on	1	1	134600/673	24.50	23.65	0.513	0.078	1.22	0.624	/
			0			Receiver on	50%	25	137600/688	24.50	23.80	0.628	-0.150	1.17	0.738	56
		Left Tilt	0			Receiver on	1	1	134600/673	24.50	23.65	0.507	0.015	1.22	0.617	/
			0			Receiver on	50%	25	137600/688	24.50	23.80	0.562	0.017	1.17	0.660	/
		Right cheek	0			Receiver on	1	1	134600/673	24.50	23.65	0.506	0.089	1.22	0.615	/
			0			Receiver on	50%	25	137600/688	24.50	23.80	0.596	0.086	1.17	0.700	/
		Right Tilt	0			Receiver on	1	1	134600/673	24.50	23.65	0.459	0.047	1.22	0.558	/
			0			Receiver on	50%	25	137600/688	24.50	23.80	0.547	-0.180	1.17	0.643	/
NR n77 Power Class 2 (Original)	ANT 2	Left cheek	0	NSA	DFT-s-OFDM QPSK	Receiver on	1	271	633332/3500	18.00	17.21	0.242	0.027	1.20	0.290	/
			0			Receiver on	50%	67	633332/3500	18.00	17.68	0.258	0.090	1.08	0.278	/
		Left Tilt	0			Receiver on	1	271	633332/3500	18.00	17.21	0.378	0.170	1.20	0.453	/
			0			Receiver on	50%	67	633332/3500	18.00	17.68	0.423	0.021	1.08	0.455	/
		Right cheek	0			Receiver on	1	271	633332/3500	18.00	17.21	0.173	0.038	1.20	0.208	/
			0			Receiver on	50%	67	633332/3500	18.00	17.68	0.181	-0.070	1.08	0.195	/
		Right Tilt	0			Receiver on	1	271	633332/3500	18.00	17.21	0.233	0.022	1.20	0.279	/
			0			Receiver on	50%	67	633332/3500	18.00	17.68	0.254	0.090	1.08	0.273	/
		Left Tilt	0			Receiver on	1	1	662000/3930	18.00	16.93	0.536	0.037	1.28	0.686	57
		Left Tilt	0			Receiver on	50%	67	662000/3930	18.00	17.70	0.498	0.026	1.07	0.534	/

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.
LTE 5 (ENDC) (Original)	ANT 0	Left cheek	0	QPSK	Receiver on	1	0	20525/836.5	21.50	20.45	0.395	-0.100	1.27	0.503	58
			0	QPSK	Receiver on	50%	25	20525/836.5	21.50	20.40	0.391	0.070	1.29	0.504	/
		Left Tilt	0	QPSK	Receiver on	1	0	20525/836.5	21.50	20.45	0.351	0.060	1.27	0.447	/
			0	QPSK	Receiver on	50%	25	20525/836.5	21.50	20.40	0.362	0.090	1.29	0.466	/
		Right cheek	0	QPSK	Receiver on	1	0	20525/836.5	21.50	20.45	0.338	0.033	1.27	0.430	/
			0	QPSK	Receiver on	50%	25	20525/836.5	21.50	20.40	0.315	0.028	1.29	0.406	/
		Right Tilt	0	QPSK	Receiver on	1	0	20525/836.5	21.50	20.45	0.358	0.090	1.27	0.456	/
			0	QPSK	Receiver on	50%	25	20525/836.5	21.50	20.40	0.370	0.060	1.29	0.477	/
LTE 12 (ENDC) (Original)	ANT 0	Left cheek	0	QPSK	Receiver on	1	25	23060/704	22.00	21.56	0.396	0.180	1.11	0.438	/
			0	QPSK	Receiver on	50%	25	23095/707.5	22.00	21.53	0.405	0.110	1.11	0.451	59
		Left Tilt	0	QPSK	Receiver on	1	25	23060/704	22.00	21.56	0.372	0.025	1.11	0.412	/
			0	QPSK	Receiver on	50%	25	23095/707.5	22.00	21.53	0.358	0.140	1.11	0.399	/
LTE 13 (ENDC) (Original)	ANT 0	Left cheek	0	QPSK	Receiver on	1	25	23230/782	22.00	21.46	0.394	0.022	1.13	0.446	60
			0	QPSK	Receiver on	50%	0	23230/782	22.00	21.44	0.381	0.100	1.14	0.433	/
		Left Tilt	0	QPSK	Receiver on	1	25	23230/782	22.00	21.46	0.375	-0.028	1.13	0.425	/
			0	QPSK	Receiver on	50%	0	23230/782	22.00	21.44	0.363	0.019	1.14	0.413	/

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.
2.4G (Original)	ANT 7	Left cheek	0	802.11b	98.0%	Receiver on	1/2412	18.00	16.82	1.030	0.021	1.34	1.379	61
			0	802.11b	98.0%	Receiver on	6/2437	18.00	16.35	0.837	0.021	1.49	1.249	/
			0	802.11b	98.0%	Receiver on	11/2462	18.00	16.41	0.784	0.010	1.47	1.154	/
		Left cheek repeat	0	802.11b	98.0%	Receiver on	1/2412	18.00	16.82	1.010	0.018	1.34	1.352	/
		Left Tilt	0	802.11b	98.0%	Receiver on	1/2412	18.00	16.82	0.689	0.013	1.34	0.923	/
			0	802.11b	98.0%	Receiver on	6/2437	18.00	16.35	0.620	0.014	1.49	0.925	/
			0	802.11b	98.0%	Receiver on	11/2462	18.00	16.41	0.586	0.027	1.47	0.862	/
		Right cheek	0	802.11b	98.0%	Receiver on	1/2412	18.00	16.82	0.415	0.023	1.34	0.556	/
		Right Tilt	0	802.11b	98.0%	Receiver on	1/2412	18.00	16.82	0.386	0.010	1.34	0.517	/
	ANT 7	Left cheek	0	802.11b	98.0%	WWAN+WLAN Receiver on	1/2412	10.00	8.62	0.153	0.170	1.40	0.215	/
		Left Tilt	0	802.11b	98.0%	WWAN+WLAN Receiver on	1/2412	10.00	8.62	0.121	0.044	1.40	0.170	/
		Right cheek	0	802.11b	98.0%	WWAN+WLAN Receiver on	1/2412	10.00	8.62	0.064	-0.016	1.40	0.090	/
		Right Tilt	0	802.11b	98.0%	WWAN+WLAN Receiver on	1/2412	10.00	8.62	0.055	0.030	1.40	0.077	/

2.4G (Variant)	ANT 7	Left cheek Battery 2	0	802.11b	98.0%	Receiver on	1/2412	18.00	16.82	0.958	0.015	1.34	1.283	/
U-NII-1 (Original)	ANT 7	Left cheek	0	802.11a	100.0%	Receiver on	48/5240	14.50	13.26	0.151	-0.020	1.33	0.201	/
		Left Tilt	0	802.11a	100.0%	Receiver on	48/5240	14.50	13.26	0.187	0.022	1.33	0.249	/
		Right cheek	0	802.11a	100.0%	Receiver on	48/5240	14.50	13.26	0.104	-0.027	1.33	0.138	/
		Right Tilt	0	802.11a	100.0%	Receiver on	48/5240	14.50	13.26	0.129	-0.047	1.33	0.172	/
U-NII-2A (Original)	ANT 7	Left cheek	0	802.11a	100.0%	Receiver on	60/5300	14.50	13.91	0.176	0.022	1.15	0.202	/
		Left Tilt	0	802.11a	100.0%	Receiver on	60/5300	14.50	13.91	0.205	0.022	1.15	0.235	/
		Right cheek	0	802.11a	100.0%	Receiver on	60/5300	14.50	13.91	0.117	-0.181	1.15	0.134	/
		Right Tilt	0	802.11a	100.0%	Receiver on	60/5300	14.50	13.91	0.149	-0.064	1.15	0.171	/
U-NII-2C (Original)	ANT 7	Left cheek	0	802.11a	100.0%	Receiver on	100/5500	14.50	13.52	0.142	0.048	1.25	0.178	/
		Left Tilt	0	802.11a	100.0%	Receiver on	100/5500	14.50	13.52	0.112	0.011	1.25	0.140	/
		Right cheek	0	802.11a	100.0%	Receiver on	100/5500	14.50	13.52	0.078	-0.046	1.25	0.098	/
		Right Tilt	0	802.11a	100.0%	Receiver on	100/5500	14.50	13.52	0.116	0.089	1.25	0.145	/
U-NII-3 (Original)	ANT 7	Left cheek	0	802.11a	100.0%	Receiver on	149/5745	14.50	12.92	0.242	0.012	1.44	0.348	/
		Left Tilt	0	802.11a	100.0%	Receiver on	149/5745	14.50	12.92	0.319	0.038	1.44	0.459	62
		Right cheek	0	802.11a	100.0%	Receiver on	149/5745	14.50	12.92	0.217	0.025	1.44	0.312	/
		Right Tilt	0	802.11a	100.0%	Receiver on	149/5745	14.50	12.92	0.290	0.012	1.44	0.417	/
	ANT 7	Left cheek	0	802.11a	100.0%	WWAN+WLAN Receiver on	157/5785	9.00	7.74	0.064	0.013	1.34	0.086	/
		Left Tilt	0	802.11a	100.0%	WWAN+WLAN Receiver on	157/5785	9.00	7.74	0.139	0.099	1.34	0.186	/
		Right cheek	0	802.11a	100.0%	WWAN+WLAN Receiver on	157/5785	9.00	7.74	0.074	0.013	1.34	0.099	/
		Right Tilt	0	802.11a	100.0%	WWAN+WLAN Receiver on	157/5785	9.00	7.74	0.099	0.012	1.34	0.132	/
Bluetooth (Original)	ANT 7	Left cheek	0	DH5	76.9%	Full Power	78/2480	8.00	7.50	0.076	0.025	1.46	0.111	63
		Left Tilt	0	DH5	76.9%	Full Power	78/2480	8.00	7.50	0.054	0.010	1.46	0.079	/
		Right cheek	0	DH5	76.9%	Full Power	78/2480	8.00	7.50	0.033	0.012	1.46	0.048	/
		Right Tilt	0	DH5	76.9%	Full Power	78/2480	8.00	7.50	0.029	0.023	1.46	0.042	/

Body-worn 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 (Original)	ANT 0	Back Side	15	GSM	Receiver off	-	-	190/836.6	32.00	30.81	0.219	-0.070	1.32	0.288	64
		Front Side	15	GSM	Receiver off	-	-	190/836.6	32.00	30.81	0.153	0.018	1.32	0.201	/
GSM 1900 (Original)	ANT 2	Back Side	15	GSM	Receiver off	-	-	661/1880	30.00	29.65	0.227	-0.180	1.08	0.246	65
		Front Side	15	GSM	Receiver off	-	-	661/1880	30.00	29.65	0.179	0.022	1.08	0.194	/
WCDMA II (Original)	ANT 2	Back Side	15	RMC	Receiver off	-	-	9400/1880	23.50	22.62	0.433	0.100	1.22	0.530	66
		Front Side	15	RMC	Receiver off	-	-	9400/1880	23.50	22.62	0.352	0.020	1.22	0.431	/
WCDMA IV (Original)	ANT 2	Back Side	15	RMC	Receiver off	-	-	1413/1732.6	23.30	22.46	0.237	0.090	1.21	0.288	67
		Front Side	15	RMC	Receiver off	-	-	1413/1732.6	23.30	22.46	0.182	-0.013	1.21	0.221	/
WCDMA V (Original)	ANT 0	Back Side	15	RMC	Receiver off	-	-	4183/836.6	24.00	22.96	0.096	0.042	1.27	0.122	68
		Front Side	15	RMC	Receiver off	-	-	4183/836.6	24.00	22.96	0.075	-0.022	1.27	0.095	/
LTE 2 (Original)	ANT 2	Back Side	15	QPSK	Receiver off	1	50	18900/1880	23.50	23.05	0.384	0.160	1.11	0.426	69
			15	QPSK	Receiver off	50%	0	19100/1900	23.50	23.06	0.332	0.080	1.11	0.367	/
		Front Side	15	QPSK	Receiver off	1	50	18900/1880	23.50	23.05	0.289	0.010	1.11	0.321	/
			15	QPSK	Receiver off	50%	0	19100/1900	23.50	23.06	0.362	0.025	1.11	0.401	/
	ANT 1	Back Side	15	QPSK	Receiver off	1	50	18700/1860	20.00	18.62	0.136	0.010	1.37	0.187	/
			15	QPSK	Receiver off	50%	50	18700/1860	20.00	18.56	0.147	0.027	1.39	0.205	/
		Front Side	15	QPSK	Receiver off	1	50	18700/1860	20.00	18.62	0.089	0.033	1.37	0.122	/
			15	QPSK	Receiver off	50%	50	18700/1860	20.00	18.56	0.090	0.049	1.39	0.125	/
LTE 4 (Original)	ANT 2	Back Side	15	QPSK	Receiver off	1	0	20050/1720	23.50	22.67	0.208	-0.100	1.21	0.252	70
			15	QPSK	Receiver off	50%	0	20050/1720	23.50	22.74	0.202	0.130	1.19	0.241	/
		Front Side	15	QPSK	Receiver off	1	0	20050/1720	23.50	22.67	0.124	0.026	1.21	0.150	/
			15	QPSK	Receiver off	50%	0	20050/1720	23.50	22.74	0.125	0.050	1.19	0.149	/
LTE 5 (Original)	ANT 0	Back Side	15	QPSK	Receiver off	1	25	20525/836.5	24.50	23.43	0.194	0.130	1.28	0.248	71
			15	QPSK	Receiver off	50%	0	20525/836.5	23.50	22.43	0.166	0.029	1.28	0.212	/
		Front Side	15	QPSK	Receiver off	1	25	20525/836.5	24.50	23.43	0.152	0.011	1.28	0.194	/
			15	QPSK	Receiver off	50%	0	20525/836.5	23.50	22.43	0.117	-0.080	1.28	0.150	/
LTE 7 (Original)	ANT 4	Back Side	15	QPSK	Receiver off	1	50	21100/2535	19.30	18.30	0.311	0.150	1.26	0.392	72
			15	QPSK	Receiver off	50%	25	21100/2535	19.30	18.35	0.308	0.023	1.24	0.383	/
		Front Side	15	QPSK	Receiver off	1	50	21100/2535	19.30	18.30	0.085	0.048	1.26	0.107	/
			15	QPSK	Receiver off	50%	25	21100/2535	19.30	18.35	0.081	0.011	1.24	0.101	/
LTE 12 (Original)	ANT 0	Back Side	15	QPSK	Receiver off	1	49	23130/711	24.50	23.80	0.167	-0.071	1.17	0.196	73
			15	QPSK	Receiver off	50%	25	23095/707.5	23.50	22.78	0.122	0.016	1.18	0.144	/
		Front Side	15	QPSK	Receiver off	1	49	23130/711	24.50	23.80	0.078	-0.040	1.17	0.092	/
			15	QPSK	Receiver off	50%	25	23095/707.5	23.50	22.78	0.057	0.032	1.18	0.067	/
LTE 13 (Original)	ANT 0	Back Side	15	QPSK	Receiver off	1	25	23230/782	24.00	22.83	0.213	-0.040	1.31	0.279	74
			15	QPSK	Receiver off	50%	25	23230/782	23.00	21.87	0.192	0.029	1.30	0.249	/
		Front Side	15	QPSK	Receiver off	1	25	23230/782	24.00	22.83	0.173	0.100	1.31	0.226	/
			15	QPSK	Receiver off	50%	25	23230/782	23.00	21.87	0.148	0.021	1.30	0.192	/
LTE 25	ANT 2	Back Side	15	QPSK	Receiver off	1	50	26590/1905	23.50	23.09	0.289	0.160	1.10	0.318	75

(Original)			15	QPSK	Receiver off	50%	0	26590/1905	23.50	23.16	0.276	0.020	1.08	0.298	/
		Front Side	15	QPSK	Receiver off	1	50	26590/1905	23.50	23.09	0.183	-0.024	1.10	0.201	/
			15	QPSK	Receiver off	50%	0	26590/1905	23.50	23.16	0.175	0.015	1.08	0.189	/
LTE 26 (Original)	ANT 0	Back Side	15	QPSK	Receiver off	1	38	26865/831.5	24.50	23.44	0.212	0.150	1.28	0.271	76
			15	QPSK	Receiver off	50%	18	26865/831.5	23.50	22.44	0.166	0.039	1.28	0.212	/
		Front Side	15	QPSK	Receiver off	1	38	26865/831.5	24.50	23.44	0.137	0.022	1.28	0.175	/
			15	QPSK	Receiver off	50%	18	26865/831.5	23.50	22.44	0.106	0.057	1.28	0.135	/
LTE 41 Power Class 3 (Original)	ANT 4	Back Side	15	QPSK	Receiver off	1	99	41490/2680	20.50	19.56	0.195	0.056	1.24	0.242	/
			15	QPSK	Receiver off	50%	25	41490/2680	20.50	19.58	0.192	-0.024	1.24	0.237	/
		Front Side	15	QPSK	Receiver off	1	99	41490/2680	20.50	19.56	0.114	0.025	1.24	0.142	/
			15	QPSK	Receiver off	50%	25	41490/2680	20.50	19.58	0.093	0.018	1.24	0.115	/
LTE 41 Power Class 2 (Original)	ANT 4	Back Side	15	QPSK	Receiver off	1	50	41055/2636.5	23.50	22.32	0.307	0.162	1.31	0.403	77
			15	QPSK	Receiver off	50%	25	41055/2636.5	23.50	22.32	0.292	0.015	1.31	0.383	/
		Front Side	15	QPSK	Receiver off	1	50	41055/2636.5	23.50	22.32	0.081	0.060	1.31	0.106	/
			15	QPSK	Receiver off	50%	25	41055/2636.5	23.50	22.32	0.078	-0.042	1.31	0.102	/
LTE 48 (Original)	ANT 2	Back Side	15	QPSK	Receiver off	1	50	56640/3690	19.50	18.80	0.155	-0.038	1.17	0.182	78
			15	QPSK	Receiver off	50%	25	56490/3675	19.50	18.78	0.148	0.024	1.18	0.175	/
		Front Side	15	QPSK	Receiver off	1	50	56640/3690	19.50	18.80	0.021	0.016	1.17	0.025	/
			15	QPSK	Receiver off	50%	25	56490/3675	19.50	18.78	0.022	0.025	1.18	0.026	/
LTE 66 (Original)	ANT 2	Back Side	15	QPSK	Receiver off	1	0	132072/1720	23.50	22.56	0.203	0.059	1.24	0.252	/
			15	QPSK	Receiver off	50%	0	132072/1720	23.50	22.58	0.187	0.049	1.24	0.231	/
		Front Side	15	QPSK	Receiver off	1	0	132072/1720	23.50	22.56	0.155	-0.020	1.24	0.192	/
			15	QPSK	Receiver off	50%	0	132072/1720	23.50	22.58	0.146	0.120	1.24	0.180	/
	ANT 1	Back Side	15	QPSK	Receiver off	1	50	132572/1770	19.00	17.25	0.325	0.160	1.50	0.486	79
			15	QPSK	Receiver off	50%	50	132572/1770	19.00	17.35	0.242	0.032	1.46	0.354	/
		Front Side	15	QPSK	Receiver off	1	50	132572/1770	19.00	17.25	0.128	-0.049	1.50	0.192	/
			15	QPSK	Receiver off	50%	50	132572/1770	19.00	17.35	0.134	0.010	1.46	0.196	/
LTE 71 (Original)	ANT 0	Back Side	15	QPSK	Receiver off	1	50	133222/673	24.50	23.77	0.285	-0.040	1.18	0.337	80
			15	QPSK	Receiver off	50%	50	133222/673	23.50	22.76	0.256	0.018	1.19	0.304	/
		Front Side	15	QPSK	Receiver off	1	50	133222/673	24.50	23.77	0.202	0.020	1.18	0.239	/
			15	QPSK	Receiver off	50%	50	133222/673	23.50	22.76	0.161	0.036	1.19	0.191	/

Band	Antenna	Test Position	Dist. (mm)	Type	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.
NR n2 (Original)	ANT 2	Back Side	15	NSA	DFT-s-OFDM QPSK	Receiver off	1	104	380000/1900	24.80	23.53	0.307	-0.050	1.34	0.411	/
			15			Receiver off	50%	25	380000/1900	24.80	23.60	0.395	0.025	1.32	0.521	81
		Front Side	15			Receiver off	1	104	380000/1900	24.80	23.53	0.260	0.020	1.34	0.348	/
			15			Receiver off	50%	25	380000/1900	24.80	23.60	0.303	0.040	1.32	0.399	/
NR n5 (Original &Variant)	ANT 0	Back Side	15	SA& NSA	DFT-s-OFDM QPSK	Receiver off	1	104	167800/839	24.50	23.22	0.211	0.040	1.34	0.283	/
			15			Receiver off	50%	25	166800/834	24.50	23.40	0.221	-0.060	1.29	0.285	82
		Front Side	15			Receiver off	1	104	167800/839	24.50	23.22	0.162	0.010	1.34	0.218	/
			15			Receiver off	50%	25	166800/834	24.50	23.40	0.159	-0.040	1.29	0.205	/

NR n25 (Original)	ANT 2	Back Side	15	SA& NSA	DFT-s-OFDM QPSK	Receiver off	1	104	381000/1905	24.80	23.40	0.342	0.010	1.38	0.472	/
			15			Receiver off	50%	25	381000/1905	24.80	23.57	0.376	0.110	1.33	0.499	83
		Front Side	15			Receiver off	1	104	381000/1905	24.80	23.40	0.223	0.030	1.38	0.308	/
			15			Receiver off	50%	25	381000/1905	24.80	23.57	0.333	0.022	1.33	0.442	/
NR n30 (Original)	ANT 4	Back Side	15	NSA	DFT-s-OFDM QPSK	Receiver off	1	50	462000/2310	22.00	20.68	0.491	-0.010	1.36	0.665	/
			15			Receiver off	50%	12	462000/2310	22.00	20.72	0.558	0.110	1.34	0.749	84
		Front Side	15			Receiver off	1	50	462000/2310	22.00	20.68	0.116	0.070	1.36	0.157	/
			15			Receiver off	50%	12	462000/2310	22.00	20.72	0.129	-0.030	1.34	0.173	/
NR n41 Power Class 2 (Original)	ANT 4	Back Side	15	SA& NSA	DFT-s-OFDM QPSK	Receiver off	1	1	509202/2546.01	20.50	19.14	0.406	0.038	1.37	0.555	85
			15			Receiver off	50%	67	509202/2546.01	20.50	19.74	0.378	-0.030	1.19	0.450	/
		Front Side	15			Receiver off	1	1	509202/2546.01	20.50	19.14	0.097	0.040	1.37	0.133	/
			15			Receiver off	50%	67	509202/2546.01	20.50	19.74	0.117	-0.050	1.19	0.139	/
NR n48 (Variant)	Main ANT2	Back Side	15	SA	DFT-s-OFDM QPSK	Receiver off	1	1	643332/3649.98	19.00	17.87	0.328	-0.010	1.30	0.425	/
			15			Receiver off	50%	67	640000/3600	19.00	18.52	0.403	-0.010	1.12	0.450	86
		Front Side	15			Receiver off	1	1	643332/3649.98	19.00	17.87	0.056	-0.100	1.30	0.073	/
			15			Receiver off	50%	67	640000/3600	19.00	18.52	0.062	0.021	1.12	0.069	/
NR n66 (Original)	ANT 2	Back Side	15	SA& NSA	DFT-s-OFDM QPSK	Receiver off	1	1	346000/1730	24.00	23.06	0.193	0.130	1.24	0.240	/
			15			Receiver off	50%	54	346000/1730	24.00	23.46	0.317	0.080	1.13	0.359	87
		Front Side	15			Receiver off	1	1	346000/1730	24.00	23.06	0.172	0.023	1.24	0.214	/
			15			Receiver off	50%	54	346000/1730	24.00	23.46	0.278	0.070	1.13	0.315	/
NR n71 (Original)	ANT 0	Back Side	15	SA& NSA	DFT-s-OFDM QPSK	Receiver off	1	1	134600/673	24.50	23.65	0.185	-0.010	1.22	0.225	/
			15			Receiver off	50%	25	137600/688	24.50	23.80	0.237	-0.100	1.17	0.278	88
		Front Side	15			Receiver off	1	1	134600/673	24.50	23.65	0.108	-0.050	1.22	0.131	/
			15			Receiver off	50%	25	137600/688	24.50	23.80	0.124	0.040	1.17	0.146	/
NR n30 (Original)	ANT 4	Back Side	15	SA& NSA	CP-OFDM QPSK	Receiver off	1	1	462000/2310	22.00	20.68	0.361	-0.040	1.36	0.489	/
NR n77 Power Class 2 (Original)	ANT 2	Back Side	15	NSA	DFT-s-OFDM QPSK	Receiver off	1	271	633332/3500	19.00	18.22	0.285	0.103	1.20	0.341	/
			15			Receiver off	50%	67	633332/3500	19.00	18.67	0.259	0.146	1.08	0.279	/
		Front Side	15			Receiver off	1	271	633332/3500	19.00	18.22	0.046	0.090	1.20	0.056	/
			15			Receiver off	50%	67	633332/3500	19.00	18.67	0.044	0.097	1.08	0.047	/
		Back Side	15			Receiver off	1	271	650000/3750	19.00	18.28	0.338	0.123	1.18	0.399	/
		Back Side	15			Receiver off	50%	67	650000/3750	19.00	18.81	0.364	0.142	1.04	0.380	89

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.
2.4G (Original)	ANT 7	Back Side	15	802.11b	98.0%	Receiver off	11/2462	20.50	19.85	0.139	0.000	1.19	0.165	/
		Front Side	15	802.11b	98.0%	Receiver off	11/2462	20.50	19.85	0.142	0.051	1.19	0.168	90
U-NII-1 (Original)	ANT 7	Back Side	15	802.11a	100.0%	Receiver off	36/5180	19.50	18.82	0.247	0.045	1.17	0.289	/
		Front Side	15	802.11a	100.0%	Receiver off	36/5180	19.50	18.82	0.139	0.017	1.17	0.163	/
U-NII-2A (Original)	ANT 7	Back Side	15	802.11a	100.0%	Receiver off	52/5260	19.50	18.70	0.220	0.020	1.20	0.264	/
		Front Side	15	802.11a	100.0%	Receiver off	52/5260	19.50	18.70	0.150	-0.022	1.20	0.180	/

U-NII-2C (Original)	ANT 7	Back Side	15	802.11a	100.0%	Receiver off	132/5660	19.50	18.70	0.250	0.190	1.20	0.301	/
		Front Side	15	802.11a	100.0%	Receiver off	132/5660	19.50	18.70	0.191	-0.038	1.20	0.230	/
U-NII-3 (Original)	ANT 7	Back Side	15	802.11a	100.0%	Receiver off	149/5745	19.50	17.70	0.428	0.070	1.51	0.648	91
		Front Side	15	802.11a	100.0%	Receiver off	149/5745	19.50	17.70	0.255	-0.035	1.51	0.386	/
		Back Side	15	802.11a	100.0%	WWAN+WLAN Receiver off	149/5745	10.20	8.53	0.029	0.100	1.47	0.043	/

Hotspot 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 (Original)	ANT 0	Back Side	10	3TX Slots	Hotspot on	-	-	190/836.6	30.50	29.23	0.603	0.035	1.34	0.808	/
			10	3TX Slots	Hotspot on	-	-	128/824.2	30.50	29.28	0.385	0.014	1.32	0.510	/
			10	3TX Slots	Hotspot on	-	-	251/848.8	30.50	29.54	0.582	0.029	1.25	0.726	/
		Front Side	10	3TX Slots	Hotspot on	-	-	190/836.6	30.50	29.23	0.507	0.011	1.34	0.679	/
		Left Edge	10	3TX Slots	Hotspot on	-	-	190/836.6	30.50	29.23	0.416	0.020	1.34	0.557	/
		Right Edge	10	3TX Slots	Hotspot on	-	-	190/836.6	30.50	29.23	0.208	0.019	1.34	0.279	/
		Top Edge	10	3TX Slots	Hotspot on	-	-	190/836.6	30.50	29.23	0.668	-0.022	1.34	0.895	/
			10	3TX Slots	Hotspot on	-	-	128/824.2	30.50	29.28	0.517	-0.050	1.32	0.685	/
			10	3TX Slots	Hotspot on	-	-	251/848.8	30.50	29.54	0.788	0.054	1.25	0.983	92
		Bottom Edge	10	3TX Slots	Hotspot on	N/A	N/A	N/A	N/A	N/A	N/A	NA	N/A	N/A	/
GSM 1900 (Original)	ANT 2	Back Side	10	4TX Slots	Hotspot on	-	-	661/1880	27.00	26.16	0.426	0.044	1.21	0.517	93
		Front Side	10	4TX Slots	Hotspot on	-	-	661/1880	27.00	26.16	0.305	0.028	1.21	0.370	/
		Left Edge	10	4TX Slots	Hotspot on	-	-	661/1880	27.00	26.16	0.044	-0.030	1.21	0.053	/
		Right Edge	10	4TX Slots	Hotspot on	N/A	N/A	N/A	N/A	N/A	N/A	NA	N/A	N/A	/
		Top Edge	10	4TX Slots	Hotspot on	-	-	661/1880	27.00	26.16	0.298	0.021	1.21	0.362	/
		Bottom Edge	10	4TX Slots	Hotspot on	N/A	N/A	N/A	N/A	N/A	N/A	NA	N/A	N/A	/
WCDMA II (Original)	ANT 2	Back Side	10	RMC	Hotspot on	-	-	9400/1880	23.50	22.62	0.597	0.028	1.22	0.731	94
		Front Side	10	RMC	Hotspot on	-	-	9400/1880	23.50	22.62	0.448	0.060	1.22	0.549	/
		Left Edge	10	RMC	Hotspot on	-	-	9400/1880	23.50	22.62	0.060	-0.043	1.22	0.073	/
		Right Edge	10	RMC	Hotspot on	N/A	N/A	N/A	N/A	N/A	N/A	NA	N/A	N/A	/
		Top Edge	10	RMC	Hotspot on	-	-	9400/1880	23.50	22.62	0.402	0.011	1.22	0.492	/
		Bottom Edge	10	RMC	Hotspot on	N/A	N/A	N/A	N/A	N/A	N/A	NA	N/A	N/A	/
WCDMA IV (Original)	ANT 2	Back Side	10	RMC	Hotspot on	-	-	1413/1732.6	23.30	22.46	0.473	0.090	1.21	0.574	95
		Front Side	10	RMC	Hotspot on	-	-	1413/1732.6	23.30	22.46	0.412	-0.025	1.21	0.500	/
		Left Edge	10	RMC	Hotspot on	-	-	1413/1732.6	23.30	22.46	0.067	0.090	1.21	0.081	/
		Right Edge	10	RMC	Hotspot on	N/A	N/A	N/A	N/A	N/A	N/A	NA	N/A	N/A	/
		Top Edge	10	RMC	Hotspot on	-	-	1413/1732.6	23.30	22.46	0.387	0.031	1.21	0.470	/
		Bottom Edge	10	RMC	Hotspot on	N/A	N/A	N/A	N/A	N/A	N/A	NA	N/A	N/A	/
WCDMA V (Original)	ANT 0	Back Side	10	RMC	Hotspot on	-	-	4183/836.6	24.00	22.96	0.375	0.040	1.27	0.476	/
		Front Side	10	RMC	Hotspot on	-	-	4183/836.6	24.00	22.96	0.208	0.029	1.27	0.264	/
		Left Edge	10	RMC	Hotspot on	-	-	4183/836.6	24.00	22.96	0.135	-0.010	1.27	0.172	/
		Right Edge	10	RMC	Hotspot on	-	-	4183/836.6	24.00	22.96	0.129	0.025	1.27	0.164	/
		Top Edge	10	RMC	Hotspot on	-	-	4183/836.6	24.00	22.96	0.517	0.020	1.27	0.657	96
		Bottom Edge	10	RMC	Hotspot on	N/A	N/A	N/A	N/A	N/A	N/A	NA	N/A	N/A	/
LTE 2 (Original)	ANT 2	Back Side	10	QPSK	Hotspot on	1	50	19100/1900	22.50	21.65	0.319	0.024	1.22	0.388	97
			10	QPSK	Hotspot on	50%	25	19100/1900	22.50	21.67	0.314	0.028	1.21	0.380	/
		Front Side	10	QPSK	Hotspot on	1	50	19100/1900	22.50	21.65	0.257	0.120	1.22	0.313	/
			10	QPSK	Hotspot on	50%	25	19100/1900	22.50	21.67	0.248	0.038	1.21	0.300	/
		Left Edge	10	QPSK	Hotspot on	N/A	N/A	N/A	N/A	N/A	N/A	NA	NA	NA	/

			10	QPSK	Hotspot on	N/A	N/A	N/A	N/A	N/A	N/A	NA	NA	NA	/
		Right Edge	10	QPSK	Hotspot on	1	50	19100/1900	22.50	21.65	0.304	-0.029	1.22	0.370	/
			10	QPSK	Hotspot on	50%	25	19100/1900	22.50	21.67	0.292	0.040	1.21	0.353	/
		Top Edge	10	QPSK	Hotspot on	1	50	19100/1900	22.50	21.65	0.176	0.062	1.22	0.214	/
			10	QPSK	Hotspot on	50%	25	19100/1900	22.50	21.67	0.166	0.010	1.21	0.201	/
		Bottom Edge	10	QPSK	Hotspot on	N/A	N/A	N/A	N/A	N/A	N/A	NA	N/A	N/A	/
			10	QPSK	Hotspot on	N/A	N/A	N/A	N/A	N/A	N/A	NA	N/A	N/A	/
	ANT 1	Back Side	10	QPSK	Hotspot on	1	50	18700/1860	16.00	14.71	0.092	0.026	1.35	0.124	/
			10	QPSK	Hotspot on	50%	0	18700/1860	16.00	14.70	0.113	0.044	1.35	0.152	/
		Front Side	10	QPSK	Hotspot on	1	50	18700/1860	16.00	14.71	0.061	-0.015	1.35	0.082	/
			10	QPSK	Hotspot on	50%	0	18700/1860	16.00	14.70	0.064	0.030	1.35	0.086	/
		Left Edge	10	QPSK	Hotspot on	1	50	18700/1860	16.00	14.71	0.001	0.100	1.35	0.001	/
			10	QPSK	Hotspot on	50%	0	18700/1860	16.00	14.70	0.001	0.012	1.35	0.001	/
		Right Edge	10	QPSK	Hotspot on	1	50	18700/1860	16.00	14.71	0.001	-0.038	1.35	0.001	/
			10	QPSK	Hotspot on	50%	0	18700/1860	16.00	14.70	0.001	0.010	1.35	0.001	/
		Top Edge	10	QPSK	Hotspot on	N/A	N/A	N/A	N/A	N/A	N/A	NA	N/A	N/A	/
			10	QPSK	Hotspot on	N/A	N/A	N/A	N/A	N/A	N/A	NA	N/A	N/A	/
		Bottom Edge	10	QPSK	Hotspot on	1	50	18700/1860	16.00	14.71	0.180	0.038	1.35	0.242	/
			10	QPSK	Hotspot on	50%	0	18700/1860	16.00	14.70	0.185	0.042	1.35	0.250	/
LTE 4 (Original)	ANT 2	Back Side	10	QPSK	Hotspot on	1	0	20050/1720	22.20	21.16	0.363	-0.010	1.27	0.461	98
			10	QPSK	Hotspot on	50%	0	20050/1720	22.20	21.20	0.294	0.027	1.26	0.370	/
		Front Side	10	QPSK	Hotspot on	1	0	20050/1720	22.20	21.16	0.249	-0.025	1.27	0.316	/
			10	QPSK	Hotspot on	50%	0	20050/1720	22.20	21.20	0.267	0.018	1.26	0.336	/
		Left Edge	10	QPSK	Hotspot on	N/A	N/A	N/A	N/A	N/A	N/A	NA	NA	NA	/
			10	QPSK	Hotspot on	N/A	N/A	N/A	N/A	N/A	N/A	NA	NA	NA	/
		Right Edge	10	QPSK	Hotspot on	1	0	20050/1720	22.20	21.16	0.263	0.090	1.27	0.334	/
			10	QPSK	Hotspot on	50%	0	20050/1720	22.20	21.20	0.256	0.017	1.26	0.322	/
		Top Edge	10	QPSK	Hotspot on	1	0	20050/1720	22.20	21.16	0.242	0.033	1.27	0.307	/
			10	QPSK	Hotspot on	50%	0	20050/1720	22.20	21.20	0.236	-0.061	1.26	0.297	/
		Bottom Edge	10	QPSK	Hotspot on	N/A	N/A	N/A	N/A	N/A	N/A	NA	N/A	N/A	/
			10	QPSK	Hotspot on	N/A	N/A	N/A	N/A	N/A	N/A	NA	N/A	N/A	/
LTE 5 (Original)	ANT 0	Back Side	10	QPSK	Hotspot on	1	25	20525/836.5	24.50	23.43	0.321	-0.160	1.28	0.411	/
			10	QPSK	Hotspot on	50%	0	20525/836.5	23.50	22.43	0.308	0.028	1.28	0.394	/
		Front Side	10	QPSK	Hotspot on	1	25	20525/836.5	24.50	23.43	0.299	0.045	1.28	0.383	/
			10	QPSK	Hotspot on	50%	0	20525/836.5	23.50	22.43	0.232	-0.035	1.28	0.297	/
		Left Edge	10	QPSK	Hotspot on	1	25	20525/836.5	24.50	23.43	0.172	0.049	1.28	0.220	/
			10	QPSK	Hotspot on	50%	0	20525/836.5	23.50	22.43	0.138	0.025	1.28	0.177	/
		Right Edge	10	QPSK	Hotspot on	1	25	20525/836.5	24.50	23.43	0.116	0.010	1.28	0.148	/
			10	QPSK	Hotspot on	50%	0	20525/836.5	23.50	22.43	0.088	-0.042	1.28	0.113	/
		Top Edge	10	QPSK	Hotspot on	1	25	20525/836.5	24.50	23.43	0.475	-0.033	1.28	0.608	99
			10	QPSK	Hotspot on	50%	0	20525/836.5	23.50	22.43	0.318	0.035	1.28	0.407	/
		Bottom Edge	10	QPSK	Hotspot on	N/A	N/A	N/A	N/A	N/A	N/A	NA	N/A	N/A	/
			10	QPSK	Hotspot on	N/A	N/A	N/A	N/A	N/A	N/A	NA	N/A	N/A	/

LTE 7 (Original)	ANT 4	Back Side	10	QPSK	Hotspot on	1	50	21100/2535	18.50	17.10	0.513	0.050	1.38	0.708	/
			10	QPSK	Hotspot on	50%	25	21100/2535	18.50	17.19	0.517	0.028	1.35	0.699	/
		Front Side	10	QPSK	Hotspot on	1	50	21100/2535	18.50	17.10	0.149	0.050	1.38	0.206	/
			10	QPSK	Hotspot on	50%	25	21100/2535	18.50	17.19	0.142	0.067	1.35	0.192	/
		Left Edge	10	QPSK	Hotspot on	1	50	21100/2535	18.50	17.10	0.684	0.100	1.38	0.944	/
			10	QPSK	Hotspot on	1	50	20850/2510	18.50	17.09	0.611	0.042	1.38	0.845	/
			10	QPSK	Hotspot on	1	50	21350/2560	18.50	17.09	0.634	-0.011	1.38	0.877	/
			10	QPSK	Hotspot on	50%	25	21100/2535	18.50	17.19	0.728	0.090	1.35	0.984	100
			10	QPSK	Hotspot on	50%	25	20850/2510	18.50	17.13	0.585	0.060	1.37	0.802	/
			10	QPSK	Hotspot on	50%	25	21350/2560	18.50	17.11	0.607	-0.029	1.38	0.836	/
			10	QPSK	Hotspot on	100%	0	21100/2535	18.50	17.10	0.576	0.013	1.38	0.795	/
		Right Edge	10	QPSK	Hotspot on	N/A	N/A	N/A	N/A	N/A	N/A	NA	N/A	N/A	/
			10	QPSK	Hotspot on	N/A	N/A	N/A	N/A	N/A	N/A	NA	N/A	N/A	/
		Top Edge	10	QPSK	Hotspot on	1	50	21100/2535	18.50	17.10	0.065	0.038	1.38	0.090	/
			10	QPSK	Hotspot on	50%	25	21100/2535	18.50	17.19	0.072	0.014	1.35	0.097	/
		Bottom Edge	10	QPSK	Hotspot on	N/A	N/A	N/A	N/A	N/A	N/A	NA	N/A	N/A	/
			10	QPSK	Hotspot on	N/A	N/A	N/A	N/A	N/A	N/A	NA	N/A	N/A	/
LTE 12 (Original)	ANT 0	Back Side	10	QPSK	Hotspot on	1	49	23130/711	24.50	23.80	0.280	-0.048	1.17	0.329	/
			10	QPSK	Hotspot on	50%	25	23095/707.5	23.50	22.78	0.213	0.025	1.18	0.251	/
		Front Side	10	QPSK	Hotspot on	1	49	23130/711	24.50	23.80	0.219	0.012	1.17	0.257	/
			10	QPSK	Hotspot on	50%	25	23095/707.5	23.50	22.78	0.184	-0.017	1.18	0.217	/
		Left Edge	10	QPSK	Hotspot on	1	49	23130/711	24.50	23.80	0.221	0.045	1.17	0.260	/
			10	QPSK	Hotspot on	50%	25	23095/707.5	23.50	22.78	0.176	0.010	1.18	0.208	/
		Right Edge	10	QPSK	Hotspot on	1	49	23130/711	24.50	23.80	0.102	0.018	1.17	0.120	/
			10	QPSK	Hotspot on	50%	25	23095/707.5	23.50	22.78	0.099	-0.030	1.18	0.117	/
		Top Edge	10	QPSK	Hotspot on	1	49	23130/711	24.50	23.80	0.366	-0.027	1.17	0.430	101
			10	QPSK	Hotspot on	50%	25	23095/707.5	23.50	22.78	0.326	0.100	1.18	0.385	/
		Bottom Edge	10	QPSK	Hotspot on	N/A	N/A	N/A	N/A	N/A	N/A	NA	N/A	N/A	/
			10	QPSK	Hotspot on	N/A	N/A	N/A	N/A	N/A	N/A	NA	N/A	N/A	/
LTE 13 (Original)	ANT 0	Back Side	10	QPSK	Hotspot on	1	25	23230/782	24.00	22.83	0.360	0.066	1.31	0.471	/
			10	QPSK	Hotspot on	50%	25	23230/782	23.00	21.87	0.311	0.061	1.30	0.403	/
		Front Side	10	QPSK	Hotspot on	1	25	23230/782	24.00	22.83	0.254	-0.048	1.31	0.333	/
			10	QPSK	Hotspot on	50%	25	23230/782	23.00	21.87	0.227	0.025	1.30	0.294	/
		Left Edge	10	QPSK	Hotspot on	1	25	23230/782	24.00	22.83	0.219	-0.026	1.31	0.287	/
			10	QPSK	Hotspot on	50%	25	23230/782	23.00	21.87	0.178	0.014	1.30	0.231	/
		Right Edge	10	QPSK	Hotspot on	1	25	23230/782	24.00	22.83	0.147	-0.040	1.31	0.192	/
			10	QPSK	Hotspot on	50%	25	23230/782	23.00	21.87	0.152	0.018	1.30	0.197	/
		Top Edge	10	QPSK	Hotspot on	1	25	23230/782	24.00	22.83	0.373	-0.025	1.31	0.488	102
			10	QPSK	Hotspot on	50%	25	23230/782	23.00	21.87	0.344	0.020	1.30	0.446	/
		Bottom Edge	10	QPSK	Hotspot on	N/A	N/A	N/A	N/A	N/A	N/A	NA	N/A	N/A	/
			10	QPSK	Hotspot on	N/A	N/A	N/A	N/A	N/A	N/A	NA	N/A	N/A	/
LTE 25 (Original)	ANT 2	Back Side	10	QPSK	Hotspot on	1	50	26590/1905	22.50	21.68	0.417	-0.026	1.21	0.504	/
			10	QPSK	Hotspot on	50%	0	26590/1905	22.50	21.77	0.428	0.037	1.18	0.506	103

		Front Side	10	QPSK	Hotspot on	1	50	26590/1905	22.50	21.68	0.312	-0.098	1.21	0.377	/
			10	QPSK	Hotspot on	50%	0	26590/1905	22.50	21.77	0.335	0.140	1.18	0.396	/
		Left Edge	10	QPSK	Hotspot on	N/A	N/A	N/A	N/A	N/A	N/A	NA	NA	NA	/
			10	QPSK	Hotspot on	N/A	N/A	N/A	N/A	N/A	N/A	NA	NA	NA	/
		Right Edge	10	QPSK	Hotspot on	1	50	26590/1905	22.50	21.68	0.375	0.030	1.21	0.453	/
			10	QPSK	Hotspot on	50%	0	26590/1905	22.50	21.77	0.382	0.017	1.18	0.452	/
		Top Edge	10	QPSK	Hotspot on	1	50	26590/1905	22.50	21.68	0.247	-0.024	1.21	0.298	/
			10	QPSK	Hotspot on	50%	0	26590/1905	22.50	21.77	0.253	0.028	1.18	0.299	/
		Bottom Edge	10	QPSK	Hotspot on	N/A	N/A	N/A	N/A	N/A	N/A	NA	N/A	N/A	/
			10	QPSK	Hotspot on	N/A	N/A	N/A	N/A	N/A	N/A	NA	N/A	N/A	/
LTE 26 (Original)	ANT 0	Back Side	10	QPSK	Hotspot on	1	38	26865/831.5	24.50	23.44	0.373	-0.190	1.28	0.476	/
			10	QPSK	Hotspot on	50%	18	26865/831.5	23.50	22.44	0.327	0.055	1.28	0.417	/
		Front Side	10	QPSK	Hotspot on	1	38	26865/831.5	24.50	23.44	0.285	-0.029	1.28	0.364	/
			10	QPSK	Hotspot on	50%	18	26865/831.5	23.50	22.44	0.242	0.053	1.28	0.309	/
		Left Edge	10	QPSK	Hotspot on	1	38	26865/831.5	24.50	23.44	0.195	0.026	1.28	0.249	/
			10	QPSK	Hotspot on	50%	18	26865/831.5	23.50	22.44	0.192	0.020	1.28	0.245	/
		Right Edge	10	QPSK	Hotspot on	1	38	26865/831.5	24.50	23.44	0.098	0.011	1.28	0.125	/
			10	QPSK	Hotspot on	50%	18	26865/831.5	23.50	22.44	0.085	0.013	1.28	0.108	/
		Top Edge	10	QPSK	Hotspot on	1	38	26865/831.5	24.50	23.44	0.445	-0.071	1.28	0.568	104
			10	QPSK	Hotspot on	50%	18	26865/831.5	23.50	22.44	0.405	0.027	1.28	0.517	/
		Bottom Edge	10	QPSK	Hotspot on	N/A	N/A	N/A	N/A	N/A	N/A	NA	N/A	N/A	/
			10	QPSK	Hotspot on	N/A	N/A	N/A	N/A	N/A	N/A	NA	N/A	N/A	/
LTE 41 Power Class 3 (Original)	ANT 4	Back Side	10	QPSK	Hotspot on	1	50	41490/2680	22.00	20.91	0.506	0.033	1.29	0.650	/
			10	QPSK	Hotspot on	50%	25	41490/2680	21.00	20.86	0.500	0.045	1.03	0.516	/
		Front Side	10	QPSK	Hotspot on	1	50	41490/2680	22.00	20.91	0.129	-0.079	1.29	0.166	/
			10	QPSK	Hotspot on	50%	25	41490/2680	21.00	20.86	0.127	0.038	1.03	0.131	/
		Left Edge	10	QPSK	Hotspot on	1	50	41490/2680	22.00	20.91	0.611	0.050	1.29	0.785	/
			10	QPSK	Hotspot on	50%	25	41490/2680	21.00	20.86	0.633	0.033	1.03	0.654	/
		Right Edge	10	QPSK	Hotspot on	N/A	N/A	N/A	N/A	N/A	N/A	NA	N/A	N/A	/
			10	QPSK	Hotspot on	N/A	N/A	N/A	N/A	N/A	N/A	NA	N/A	N/A	/
		Top Edge	10	QPSK	Hotspot on	1	50	41490/2680	22.00	20.91	0.063	0.054	1.29	0.081	/
			10	QPSK	Hotspot on	50%	25	41490/2680	21.00	20.86	0.065	0.170	1.03	0.067	/
		Bottom Edge	10	QPSK	Hotspot on	N/A	N/A	N/A	N/A	N/A	N/A	NA	N/A	N/A	/
			10	QPSK	Hotspot on	N/A	N/A	N/A	N/A	N/A	N/A	NA	N/A	N/A	/
LTE 41 Power Class 2 (Original)	ANT 4	Back Side	10	QPSK	Hotspot on	1	50	41490/2680	24.50	23.87	0.732	0.025	1.16	0.846	/
			10	QPSK	Hotspot on	1	50	41055/2636.5	24.50	23.85	0.542	0.019	1.16	0.630	/
			10	QPSK	Hotspot on	1	99	40620/2593	24.50	23.73	0.458	0.022	1.19	0.547	/
			10	QPSK	Hotspot on	50%	25	41490/2680	24.50	23.79	0.733	0.110	1.18	0.863	/
			10	QPSK	Hotspot on	50%	0	41055/2636.5	24.50	23.78	0.529	0.024	1.18	0.624	/
			10	QPSK	Hotspot on	50%	25	40620/2593	24.50	23.68	0.465	-0.080	1.21	0.562	/
		Front Side	10	QPSK	Hotspot on	1	50	41490/2680	24.50	23.87	0.170	0.150	1.16	0.197	/
			10	QPSK	Hotspot on	50%	25	41490/2680	24.50	23.79	0.170	0.020	1.18	0.200	/
		Left Edge	10	QPSK	Hotspot on	1	50	41490/2680	24.50	23.87	0.979	0.044	1.16	1.132	105

			10	QPSK	Hotspot on	1	50	41055/2636.5	24.50	23.85	0.891	0.170	1.16	1.035	/
			10	QPSK	Hotspot on	1	99	40620/2593	24.50	23.73	0.689	-0.010	1.19	0.823	/
			10	QPSK	Hotspot on	50%	25	41490/2680	24.50	23.79	0.942	0.032	1.18	1.109	/
			10	QPSK	Hotspot on	50%	0	41055/2636.5	24.50	23.78	0.839	0.026	1.18	0.990	/
			10	QPSK	Hotspot on	50%	25	40620/2593	24.50	23.68	0.753	0.010	1.21	0.909	/
			10	QPSK	Hotspot on	100%	0	41055/2636.5	24.50	23.79	0.664	-0.049	1.18	0.782	/
		Left Edge repeat	10	QPSK	Hotspot on	1	50	41490/2680	24.50	23.87	0.943	0.017	1.16	1.090	/
		Right Edge	10	QPSK	Hotspot on	N/A	N/A	N/A	N/A	N/A	N/A	NA	N/A	N/A	/
			10	QPSK	Hotspot on	N/A	N/A	N/A	N/A	N/A	N/A	NA	N/A	N/A	/
		Top Edge	10	QPSK	Hotspot on	1	50	41490/2680	24.50	23.87	0.085	0.031	1.16	0.098	/
			10	QPSK	Hotspot on	50%	25	41490/2680	24.50	23.79	0.083	-0.021	1.18	0.098	/
		Bottom Edge	10	QPSK	Hotspot on	N/A	N/A	N/A	N/A	N/A	N/A	NA	N/A	N/A	/
			10	QPSK	Hotspot on	N/A	N/A	N/A	N/A	N/A	N/A	NA	N/A	N/A	/
LTE 41 Power Class 2 (Variant)	ANT 4	Left Edge Battery 2	10	QPSK	Hotspot on	1	50	41490/2680	24.50	23.87	0.638	-0.020	1.16	0.738	/
		Left Edge SIM2	10	QPSK	Hotspot on	1	50	41490/2680	24.50	23.87	0.615	-0.100	1.16	0.711	/
LTE 48 (Original)	ANT 2	Back Side	10	QPSK	Hotspot on	1	99	56340/3660	20.00	19.29	0.342	0.064	1.18	0.403	/
			10	QPSK	Hotspot on	50%	50	56640/3690	20.00	19.27	0.327	0.041	1.18	0.387	/
		Front Side	10	QPSK	Hotspot on	1	99	56340/3660	20.00	19.29	0.093	0.038	1.18	0.110	/
			10	QPSK	Hotspot on	50%	50	56640/3690	20.00	19.27	0.106	-0.023	1.18	0.125	/
		Left Edge	10	QPSK	Hotspot on	N/A	N/A	N/A	N/A	N/A	N/A	NA	NA	NA	/
			10	QPSK	Hotspot on	N/A	N/A	N/A	N/A	N/A	N/A	NA	NA	NA	/
		Right Edge	10	QPSK	Hotspot on	1	99	56340/3660	20.00	19.29	0.392	0.082	1.18	0.462	106
			10	QPSK	Hotspot on	50%	50	56640/3690	20.00	19.27	0.321	0.027	1.18	0.380	/
		Top Edge	10	QPSK	Hotspot on	1	99	56340/3660	20.00	19.29	0.229	0.170	1.18	0.270	/
			10	QPSK	Hotspot on	50%	50	56640/3690	20.00	19.27	0.252	0.030	1.18	0.298	/
		Bottom Edge	10	QPSK	Hotspot on	N/A	N/A	N/A	N/A	N/A	N/A	NA	N/A	N/A	/
			10	QPSK	Hotspot on	N/A	N/A	N/A	N/A	N/A	N/A	NA	N/A	N/A	/
LTE 66 (Original)	ANT 2	Back Side	10	QPSK	Hotspot on	1	0	132072/1720	22.20	21.19	0.208	0.050	1.26	0.262	/
			10	QPSK	Hotspot on	50%	0	132072/1720	22.20	21.21	0.206	0.080	1.26	0.259	/
		Front Side	10	QPSK	Hotspot on	1	0	132072/1720	22.20	21.19	0.192	0.019	1.26	0.242	/
			10	QPSK	Hotspot on	50%	0	132072/1720	22.20	21.21	0.198	0.023	1.26	0.249	/
		Left Edge	10	QPSK	Hotspot on	N/A	N/A	N/A	N/A	N/A	N/A	NA	NA	NA	/
			10	QPSK	Hotspot on	N/A	N/A	N/A	N/A	N/A	N/A	NA	NA	NA	/
		Right Edge	10	QPSK	Hotspot on	1	0	132072/1720	22.20	21.19	0.196	-0.022	1.26	0.247	/
			10	QPSK	Hotspot on	50%	0	132072/1720	22.20	21.21	0.187	0.040	1.26	0.235	/
		Top Edge	10	QPSK	Hotspot on	1	0	132072/1720	22.20	21.19	0.223	0.150	1.26	0.281	107
			10	QPSK	Hotspot on	50%	0	132072/1720	22.20	21.21	0.218	0.017	1.26	0.274	/
		Bottom Edge	10	QPSK	Hotspot on	N/A	N/A	N/A	N/A	N/A	N/A	NA	N/A	N/A	/
			10	QPSK	Hotspot on	N/A	N/A	N/A	N/A	N/A	N/A	NA	N/A	N/A	/
	ANT 1	Back Side	10	QPSK	Hotspot on	1	50	132572/1770	15.00	13.34	0.160	0.046	1.47	0.234	/

			10	QPSK	Hotspot on	50%	50	132572/1770	15.00	13.39	0.155	0.090	1.45	0.225	/
		Front Side	10	QPSK	Hotspot on	1	50	132572/1770	15.00	13.34	0.066	-0.015	1.47	0.097	/
			10	QPSK	Hotspot on	50%	50	132572/1770	15.00	13.39	0.061	0.022	1.45	0.088	/
		Left Edge	10	QPSK	Hotspot on	1	50	132572/1770	15.00	13.34	0.001	0.031	1.47	0.001	/
			10	QPSK	Hotspot on	50%	50	132572/1770	15.00	13.39	0.001	0.090	1.45	0.001	/
		Right Edge	10	QPSK	Hotspot on	1	50	132572/1770	15.00	13.34	0.001	-0.047	1.47	0.001	/
			10	QPSK	Hotspot on	50%	50	132572/1770	15.00	13.39	0.001	0.100	1.45	0.001	/
		Top Edge	10	QPSK	Hotspot on	N/A	N/A	N/A	N/A	N/A	N/A	NA	N/A	N/A	/
			10	QPSK	Hotspot on	N/A	N/A	N/A	N/A	N/A	N/A	NA	N/A	N/A	/
		Bottom Edge	10	QPSK	Hotspot on	1	50	132572/1770	15.00	13.34	0.191	0.026	1.47	0.280	/
			10	QPSK	Hotspot on	50%	50	132572/1770	15.00	13.39	0.184	-0.031	1.45	0.267	/
LTE 71 (Original)	ANT 0	Back Side	10	QPSK	Hotspot on	1	50	133222/673	24.50	23.77	0.324	-0.040	1.18	0.383	108
			10	QPSK	Hotspot on	50%	50	133222/673	23.50	22.76	0.320	0.011	1.19	0.379	/
		Front Side	10	QPSK	Hotspot on	1	50	133222/673	24.50	23.77	0.266	0.025	1.18	0.315	/
			10	QPSK	Hotspot on	50%	50	133222/673	23.50	22.76	0.278	0.090	1.19	0.330	/
		Left Edge	10	QPSK	Hotspot on	1	50	133222/673	24.50	23.77	0.308	-0.042	1.18	0.364	/
			10	QPSK	Hotspot on	50%	50	133222/673	23.50	22.76	0.312	0.016	1.19	0.370	/
		Right Edge	10	QPSK	Hotspot on	1	50	133222/673	24.50	23.77	0.170	0.180	1.18	0.201	/
			10	QPSK	Hotspot on	50%	50	133222/673	23.50	22.76	0.175	0.027	1.19	0.208	/
		Top Edge	10	QPSK	Hotspot on	1	50	133222/673	24.50	23.77	0.288	0.033	1.18	0.341	/
			10	QPSK	Hotspot on	50%	50	133222/673	23.50	22.76	0.214	0.050	1.19	0.254	/
		Bottom Edge	10	QPSK	Hotspot on	N/A	N/A	N/A	N/A	N/A	N/A	NA	N/A	N/A	/
			10	QPSK	Hotspot on	N/A	N/A	N/A	N/A	N/A	N/A	NA	N/A	N/A	/

Band	Antenna	Test Position	Dist. (mm)	Type	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.
NR n2 (Original)	ANT 2	Back Side	10	NSA	DFT-s-OFDM QPSK	Hotspot on	1	104	380000/1900	21.00	20.34	0.348	-0.030	1.16	0.405	/
			10			Hotspot on	50%	25	380000/1900	21.00	20.37	0.378	0.022	1.16	0.437	/
		Front Side	10			Hotspot on	1	104	380000/1900	21.00	20.34	0.286	0.060	1.16	0.333	/
			10			Hotspot on	50%	25	380000/1900	21.00	20.37	0.302	0.042	1.16	0.349	/
		Left Edge	10			Hotspot on	1	104	380000/1900	21.00	20.34	0.044	0.010	1.16	0.051	/
			10			Hotspot on	50%	25	380000/1900	21.00	20.37	0.062	-0.010	1.16	0.072	/
		Right Edge	10			Hotspot on	1	104	380000/1900	21.00	20.34	0.369	0.080	1.16	0.430	/
			10			Hotspot on	50%	25	380000/1900	21.00	20.37	0.385	0.190	1.16	0.445	109
		Top Edge	10			Hotspot on	1	104	380000/1900	21.00	20.34	0.165	-0.030	1.16	0.192	/
			10			Hotspot on	50%	25	380000/1900	21.00	20.37	0.192	0.030	1.16	0.222	/
NR n5 (Original &Variant)	ANT 0	Back Side	10	SA& NSA	DFT-s-OFDM QPSK	Hotspot on	1	104	167800/839	24.50	23.22	0.427	-0.070	1.34	0.573	/
			10			Hotspot on	50%	25	167300/836.5	24.50	23.40	0.417	-0.010	1.29	0.537	/
		Front Side	10			Hotspot on	1	104	167800/839	24.50	23.22	0.305	0.010	1.34	0.410	/
			10			Hotspot on	50%	25	167300/836.5	24.50	23.40	0.346	0.060	1.29	0.446	/
		Left Edge	10			Hotspot on	1	104	167800/839	24.50	23.22	0.302	0.040	1.34	0.406	/
			10			Hotspot on	50%	25	167300/836.5	24.50	23.40	0.304	0.048	1.29	0.392	/

		Right Edge	10			Hotspot on	1	104	167800/839	24.50	23.22	0.158	0.020	1.34	0.212	/
			10			Hotspot on	50%	25	167300/836.5	24.50	23.40	0.152	0.030	1.29	0.196	/
		Top Edge	10			Hotspot on	1	104	167800/839	24.50	23.22	0.463	-0.017	1.34	0.622	/
			10			Hotspot on	50%	25	167300/836.5	24.50	23.40	0.486	0.020	1.29	0.626	110
		Bottom Edge	10			Hotspot on	1	N/A	N/A	N/A	N/A	N/A	NA	N/A	N/A	/
			10			Hotspot on	50%	N/A	N/A	N/A	N/A	N/A	NA	N/A	N/A	/
NR n25 (Original)	ANT 2	Back Side	10	SA	DFT-s-OFDM QPSK	Hotspot on	1	1	381000/1905	24.80	23.40	0.710	0.130	1.38	0.980	/
			10			Hotspot on	1	104	372000/1860	24.80	23.30	0.513	0.160	1.41	0.725	/
			10			Hotspot on	1	104	376500/1882.5	24.80	23.38	0.509	0.140	1.39	0.706	/
			10			Hotspot on	50%	25	381000/1905	24.80	23.57	0.802	0.110	1.33	1.065	111
			10			Hotspot on	50%	25	372000/1860	24.80	23.43	0.585	0.030	1.37	0.802	/
			10			Hotspot on	50%	25	376500/1882.5	24.80	23.53	0.570	0.021	1.34	0.764	/
			10			Hotspot on	100%	0	381000/1905	24.80	22.58	0.432	0.140	1.67	0.720	/
		Back Side repeat	10			Hotspot on	50%	25	381000/1905	24.80	23.57	0.743	0.020	1.33	0.986	/
		Front Side	10			Hotspot on	1	1	381000/1905	24.80	23.40	0.446	0.020	1.38	0.616	/
			10			Hotspot on	50%	25	381000/1905	24.80	23.57	0.527	0.140	1.33	0.700	/
		Left Edge	10			Hotspot on	1	1	381000/1905	24.80	23.40	0.065	0.030	1.38	0.090	/
			10			Hotspot on	50%	25	381000/1905	24.80	23.57	0.072	0.010	1.33	0.096	/
		Right Edge	10			Hotspot on	1	1	381000/1905	24.80	23.40	0.602	0.120	1.38	0.831	/
			10			Hotspot on	1	104	372000/1860	24.80	23.30	0.578	0.160	1.41	0.816	/
			10			Hotspot on	1	104	376500/1882.5	24.80	23.38	0.581	0.040	1.39	0.806	/
			10			Hotspot on	50%	25	381000/1905	24.80	23.57	0.673	0.030	1.33	0.893	/
			10			Hotspot on	50%	25	372000/1860	24.80	23.43	0.659	0.050	1.37	0.903	/
			10			Hotspot on	50%	25	376500/1882.5	24.80	23.53	0.682	0.040	1.34	0.914	/
		Top Edge	10			Hotspot on	1	1	381000/1905	24.80	23.40	0.372	0.010	1.38	0.514	/
			10			Hotspot on	50%	25	381000/1905	24.80	23.57	0.474	0.010	1.33	0.629	/
		Bottom Edge	10			Hotspot on	1	N/A	N/A	N/A	N/A	N/A	NA	N/A	N/A	/
			10			Hotspot on	50%	N/A	N/A	N/A	N/A	N/A	NA	N/A	N/A	/
		Back Side	10	NSA		Hotspot on	1	1	381000/1905	21.00	20.47	0.312	0.060	1.13	0.352	/
			10			Hotspot on	50%	25	381000/1905	21.00	20.37	0.347	-0.020	1.16	0.401	/
		Right Edge	10			Hotspot on	1	1	381000/1905	21.00	20.47	0.369	0.060	1.13	0.417	/
			10			Hotspot on	50%	25	381000/1905	21.00	20.37	0.384	0.110	1.16	0.444	/
NR n30 (Original)	ANT 4	Back Side	10	NSA	DFT-s-OFDM QPSK	Hotspot on	1	1	462000/2310	20.00	18.99	0.589	0.071	1.26	0.743	/
			10			Hotspot on	50%	12	462000/2310	20.00	19.06	0.610	0.107	1.24	0.757	112
		Front Side	10			Hotspot on	1	1	462000/2310	20.00	18.99	0.153	-0.020	1.26	0.193	/
			10			Hotspot on	50%	12	462000/2310	20.00	19.06	0.161	0.060	1.24	0.200	/
		Left Edge	10			Hotspot on	1	1	462000/2310	20.00	18.99	0.545	0.110	1.26	0.688	/
			10			Hotspot on	50%	12	462000/2310	20.00	19.06	0.556	0.022	1.24	0.690	/
		Right Edge	10			Hotspot on	1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/
			10			Hotspot on	50%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/
		Top Edge	10			Hotspot on	1	1	462000/2310	20.00	18.99	0.084	0.160	1.26	0.106	/
			10			Hotspot on	50%	12	462000/2310	20.00	19.06	0.078	0.060	1.24	0.097	/

		Bottom Edge	10			Hotspot on	1	N/A	N/A	N/A	N/A	N/A	NA	N/A	N/A	/
			10			Hotspot on	50%	N/A	N/A	N/A	N/A	N/A	NA	N/A	N/A	/
NR n41 Power Class 2 (Original)	ANT 4	Back Side	10	SA& NSA	DFT-s-OFDM QPSK	Hotspot on	1	1	509202/2546.01	19.00	17.84	0.598	0.070	1.31	0.781	/
			10			Hotspot on	50%	67	509202/2546.01	19.00	18.21	0.653	0.011	1.20	0.783	113
		Front Side	10			Hotspot on	1	1	509202/2546.01	19.00	17.84	0.172	0.050	1.31	0.225	/
			10			Hotspot on	50%	67	509202/2546.01	19.00	18.21	0.177	-0.070	1.20	0.212	/
		Left Edge	10			Hotspot on	1	1	509202/2546.01	19.00	17.84	0.582	0.050	1.31	0.760	/
			10			Hotspot on	50%	67	509202/2546.01	19.00	18.21	0.624	-0.070	1.20	0.748	/
		Right Edge	10			Hotspot on	1	1	NA	NA	NA	NA	NA	NA	NA	/
			10			Hotspot on	50%	67	NA	NA	NA	NA	NA	NA	NA	/
		Top Edge	10			Hotspot on	1	1	509202/2546.01	19.00	17.84	0.081	0.140	1.31	0.106	/
			10			Hotspot on	50%	67	509202/2546.01	19.00	18.21	0.086	0.020	1.20	0.103	/
		Bottom Edge	10			Hotspot on	1	N/A	N/A	N/A	N/A	N/A	NA	N/A	N/A	/
			10			Hotspot on	50%	N/A	N/A	N/A	N/A	N/A	NA	N/A	N/A	/
NR n48 (Variant)	ANT2	Back Side	10	SA	DFT-s-OFDM QPSK	Hotspot on	1	1	643332/3649.98	18.50	17.35	0.445	0.044	1.30	0.580	/
			10			Hotspot on	50%	67	640000/3600	18.50	18.02	0.494	0.032	1.12	0.552	/
		Front Side	10			Hotspot on	1	1	643332/3649.98	18.50	17.35	0.066	0.031	1.30	0.086	/
			10			Hotspot on	50%	67	640000/3600	18.50	18.02	0.048	0.010	1.12	0.053	/
		Left Edge	10			Hotspot on	1	1	643332/3649.98	18.50	17.35	0.037	-0.037	1.30	0.048	/
			10			Hotspot on	50%	67	640000/3600	18.50	18.02	0.054	-0.027	1.12	0.060	/
		Right Edge	10			Hotspot on	1	1	643332/3649.98	18.50	17.35	0.591	-0.050	1.30	0.770	/
			10			Hotspot on	50%	67	640000/3600	18.50	18.02	0.642	0.163	1.12	0.717	114
		Top Edge	10			Hotspot on	1	1	643332/3649.98	18.50	17.35	0.164	-0.010	1.30	0.214	/
			10			Hotspot on	50%	67	640000/3600	18.50	18.02	0.268	-0.020	1.12	0.299	/
		Bottom Edge	10			Hotspot on	1	N/A	N/A	N/A	N/A	N/A	NA	N/A	N/A	/
			10			Hotspot on	50%	N/A	N/A	N/A	N/A	N/A	NA	N/A	N/A	/
NR n66 (Original)	ANT 2	Back Side	10	SA& NSA	DFT-s-OFDM QPSK	Hotspot on	1	1	346000/1730	24.50	23.06	0.418	0.140	1.39	0.582	/
			10			Hotspot on	50%	54	346000/1730	24.50	23.46	0.556	0.170	1.27	0.706	115
		Front Side	10			Hotspot on	1	1	346000/1730	24.50	23.06	0.401	-0.010	1.39	0.559	/
			10			Hotspot on	50%	54	346000/1730	24.50	23.46	0.442	-0.020	1.27	0.562	/
		Left Edge	10			Hotspot on	1	1	346000/1730	24.50	23.06	0.061	0.074	1.39	0.085	/
			10			Hotspot on	50%	54	346000/1730	24.50	23.46	0.063	0.011	1.27	0.080	/
		Right Edge	10			Hotspot on	1	1	346000/1730	24.50	23.06	0.506	0.100	1.39	0.705	/
			10			Hotspot on	50%	54	346000/1730	24.50	23.46	0.523	0.074	1.27	0.665	/
		Top Edge	10			Hotspot on	1	1	346000/1730	24.50	23.06	0.501	0.085	1.39	0.698	/
			10			Hotspot on	50%	54	346000/1730	24.50	23.46	0.506	0.014	1.27	0.643	/
		Bottom Edge	10			Hotspot on	1	N/A	N/A	N/A	N/A	N/A	NA	N/A	N/A	/
			10			Hotspot on	50%	N/A	N/A	N/A	N/A	N/A	NA	N/A	N/A	/
NR n71 (Original)	ANT 0	Back Side	10	SA& NSA	DFT-s-OFDM QPSK	Hotspot on	1	1	134600/673	24.50	23.65	0.306	0.050	1.22	0.372	/
			10			Hotspot on	50%	25	137600/688	24.50	23.80	0.350	-0.020	1.17	0.411	116
		Front Side	10			Hotspot on	1	1	134600/673	24.50	23.65	0.187	0.110	1.22	0.227	/
			10			Hotspot on	50%	25	137600/688	24.50	23.80	0.228	-0.050	1.17	0.268	/
		Left Edge	10			Hotspot on	1	1	134600/673	24.50	23.65	0.194	-0.050	1.22	0.236	/

			10			Hotspot on	50%	25	137600/688	24.50	23.80	0.309	0.020	1.17	0.363	/
		Right Edge	10			Hotspot on	1	1	134600/673	24.50	23.65	0.086	0.056	1.22	0.105	/
			10			Hotspot on	50%	25	137600/688	24.50	23.80	0.140	0.050	1.17	0.164	/
		Top Edge	10			Hotspot on	1	1	134600/673	24.50	23.65	0.197	0.032	1.22	0.240	/
			10			Hotspot on	50%	25	137600/688	24.50	23.80	0.286	0.010	1.17	0.336	/
		Bottom Edge	10			Hotspot on	1	N/A	N/A	N/A	N/A	N/A	NA	N/A	N/A	/
			10			Hotspot on	50%	N/A	N/A	N/A	N/A	N/A	NA	N/A	N/A	/
NR n77 Power Class 2 (Original)	ANT 2	Back Side	10	NSA	DFT-s-OFDM QPSK	Hotspot on	1	271	633332/3500	18.50	18.03	0.545	0.020	1.11	0.607	/
			10			Hotspot on	50%	67	633332/3500	18.50	18.09	0.554	0.020	1.10	0.609	117
		Front Side	10			Hotspot on	1	271	633332/3500	18.03	19.38	0.102	0.014	0.73	0.075	/
			10			Hotspot on	50%	67	633332/3500	18.03	20.01	0.088	-0.030	0.63	0.056	/
		Left Edge	10			Hotspot on	1	271	633332/3500	18.03	19.38	0.038	0.010	0.73	0.028	/
			10			Hotspot on	50%	67	633332/3500	18.03	20.01	0.032	0.026	0.63	0.020	/
		Right Edge	10			Hotspot on	1	271	633332/3500	18.50	18.03	0.472	0.010	1.11	0.526	/
			10			Hotspot on	50%	67	633332/3500	18.50	18.09	0.476	0.030	1.10	0.523	/
		Top Edge	10			Hotspot on	1	N/A	633332/3500	18.03	19.38	0.286	0.070	0.73	0.210	/
			10			Hotspot on	50%	N/A	633332/3500	18.03	20.01	0.294	0.110	0.63	0.186	/
		Bottom Edge	10			Hotspot on	1	271	N/A	N/A	N/A	N/A	NA	N/A	N/A	/
			10			Hotspot on	50%	67	N/A	N/A	N/A	N/A	NA	N/A	N/A	/

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.
2.4G (Original)	ANT 7	Back Side	10	802.11b	98.0%	Hotspot on	11/2462	20.50	19.85	0.415	0.018	1.19	0.492	118
		Front Side	10	802.11b	98.0%	Hotspot on	11/2462	20.50	19.85	0.385	0.060	1.19	0.456	/
		Left Edge	10	802.11b	98.0%	Hotspot on	11/2462	20.50	19.85	0.025	-0.030	1.19	0.030	/
		Right Edge	10	802.11b	98.0%	Hotspot on	11/2462	20.50	19.85	0.345	0.012	1.19	0.409	/
		Top Edge	10	802.11b	98.0%	Hotspot on	11/2462	20.50	19.85	0.257	0.051	1.19	0.305	/
		Bottom Edge	10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/
		Back Side	10	802.11b	98.0%	WWAN+WLAN Hotspot on	1/2412	15.00	13.48	0.167	0.012	1.45	0.242	/
		Right Edge	10	802.11b	98.0%	WWAN+WLAN Hotspot on	1/2412	15.00	13.48	0.123	0.018	1.45	0.178	/
		Top Edge	10	802.11b	98.0%	WWAN+WLAN Hotspot on	1/2412	15.00	13.48	0.098	0.012	1.45	0.142	/
U-NII-1 (Original)	ANT 7	Back Side	10	802.11a	100.0%	Hotspot on	36/5180	19.50	18.82	0.243	0.014	1.17	0.284	/
		Front Side	10	802.11a	100.0%	Hotspot on	36/5180	19.50	18.82	0.186	0.032	1.17	0.218	/
		Left Edge	10	802.11a	100.0%	Hotspot on	36/5180	19.50	18.82	0.066	0.080	1.17	0.077	/
		Right Edge	10	802.11a	100.0%	Hotspot on	36/5180	19.50	18.82	0.309	0.040	1.17	0.361	/
		Top Edge	10	802.11a	100.0%	Hotspot on	36/5180	19.50	18.82	0.606	0.021	1.17	0.709	/
		Bottom Edge	10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/
		Back Side	10	802.11a	100.0%	WWAN+WLAN	48/5240	13.00	12.31	0.089	0.050	1.17	0.104	/

						Hotspot on								
		Right Edge	10	802.11a	100.0%	WWAN+WLAN Hotspot on	48/5240	13.00	12.31	0.104	0.030	1.17	0.122	/
		Top Edge	10	802.11a	100.0%	WWAN+WLAN Hotspot on	48/5240	13.00	12.31	0.145	0.036	1.17	0.170	/
U-NII-2A (Original)	ANT 7	Back Side	10	802.11a	100.0%	Hotspot on	52/5260	19.50	18.70	0.275	0.027	1.20	0.331	/
		Front Side	10	802.11a	100.0%	Hotspot on	52/5260	19.50	18.70	0.230	-0.039	1.20	0.277	/
		Left Edge	10	802.11a	100.0%	Hotspot on	52/5260	19.50	18.70	0.073	0.018	1.20	0.088	/
		Right Edge	10	802.11a	100.0%	Hotspot on	52/5260	19.50	18.70	0.331	0.022	1.20	0.398	/
		Top Edge	10	802.11a	100.0%	Hotspot on	52/5260	19.50	18.70	0.539	0.105	1.20	0.648	/
		Bottom Edge	10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/
		Back Side	10	802.11a	100.0%	WWAN+WLAN Hotspot on	52/5260	13.00	12.56	0.080	0.060	1.11	0.089	/
		Right Edge	10	802.11a	100.0%	WWAN+WLAN Hotspot on	52/5260	13.00	12.56	0.072	0.110	1.11	0.080	/
		Top Edge	10	802.11a	100.0%	WWAN+WLAN Hotspot on	52/5260	13.00	12.56	0.219	0.032	1.11	0.242	/
U-NII-2C (Original)	ANT 7	Back Side	10	802.11a	100.0%	Hotspot on	132/5660	19.50	18.70	0.275	0.048	1.20	0.331	/
		Front Side	10	802.11a	100.0%	Hotspot on	132/5660	19.50	18.70	0.213	0.010	1.20	0.256	/
		Left Edge	10	802.11a	100.0%	Hotspot on	132/5660	19.50	18.70	0.067	0.042	1.20	0.081	/
		Right Edge	10	802.11a	100.0%	Hotspot on	132/5660	19.50	18.70	0.255	0.150	1.20	0.307	/
		Top Edge	10	802.11a	100.0%	Hotspot on	132/5660	19.50	18.70	0.559	0.027	1.20	0.672	/
		Bottom Edge	10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/
		Back Side	10	802.11a	100.0%	WWAN+WLAN Hotspot on	100/5500	13.00	12.38	0.053	0.050	1.15	0.061	/
		Right Edge	10	802.11a	100.0%	WWAN+WLAN Hotspot on	100/5500	13.00	12.38	0.050	0.100	1.15	0.058	/
		Top Edge	10	802.11a	100.0%	WWAN+WLAN Hotspot on	100/5500	13.00	12.38	0.105	0.140	1.15	0.121	/
U-NII-3 (Original)	ANT 7	Back Side	10	802.11a	100.0%	Hotspot on	149/5745	19.50	17.70	0.446	-0.033	1.51	0.675	/
		Front Side	10	802.11a	100.0%	Hotspot on	149/5745	19.50	17.70	0.274	0.028	1.51	0.415	/
		Left Edge	10	802.11a	100.0%	Hotspot on	149/5745	19.50	17.70	0.064	0.050	1.51	0.097	/
		Right Edge	10	802.11a	100.0%	Hotspot on	149/5745	19.50	17.70	0.254	0.019	1.51	0.384	/
		Top Edge	10	802.11a	100.0%	Hotspot on	149/5745	19.50	17.70	0.721	0.023	1.51	1.091	119
		Top Edge	10	802.11a	100.0%	Hotspot on	157/5785	19.50	17.63	0.659	0.038	1.54	1.014	/
		Top Edge	10	802.11a	100.0%	Hotspot on	165/5825	19.50	17.51	0.672	0.014	1.58	1.063	/
		Bottom Edge	10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/
		Back Side	10	802.11a	100.0%	WWAN+WLAN Hotspot on	149/5745	13.00	11.53	0.015	0.100	1.40	0.021	/
		Right Edge	10	802.11a	100.0%	WWAN+WLAN Hotspot on	149/5745	13.00	11.53	0.016	0.060	1.40	0.022	/
		Top Edge	10	802.11a	100.0%	WWAN+WLAN Hotspot on	149/5745	13.00	11.53	0.160	0.072	1.40	0.224	/
Bluetooth	ANT 7	Back Side	10	DH5	76.9%	Full Power	78/2480	8.00	7.50	0.019	0.099	1.46	0.028	120

(Original)		Front Side	10	DH5	76.9%	Full Power	78/2480	8.00	7.50	0.012	0.025	1.46	0.018	/
		Left Edge	10	DH5	76.9%	Full Power	78/2480	8.00	7.50	0.004	-0.017	1.46	0.006	/
		Right Edge	10	DH5	76.9%	Full Power	78/2480	8.00	7.50	0.001	0.020	1.46	0.001	/
		Top Edge	10	DH5	76.9%	Full Power	78/2480	8.00	7.50	0.010	0.038	1.46	0.015	/
		Bottom Edge	10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/

Product-specific 10g SAR Evaluation

Band	Antenna	Test Position	Mode	Power Reduction	RB	Offset	Channel Frequency (MHz)	Tune-up (dBm)	Measured power (dBm)	Measured SAR1g (W/Kg)	Scaling Factor	Report SAR1g (W/kg)	0mm SAR Test
LTE 2 (Original)	ANT 2	Back Side	QPSK	Full power	1	50	19100/1900	23.50	22.50	0.388	1.26	0.488	NO
			QPSK	Full power	50%	25	19100/1900	23.50	22.50	0.380	1.26	0.479	NO
		Front Side	QPSK	Full power	1	50	19100/1900	23.50	22.50	0.313	1.26	0.393	NO
			QPSK	Full power	50%	25	19100/1900	23.50	22.50	0.300	1.26	0.378	NO
		Left Edge	QPSK	Full power	N/A	N/A	N/A	N/A	N/A	NA	NA	NA	NA
			QPSK	Full power	N/A	N/A	N/A	N/A	N/A	NA	NA	NA	NA
		Right Edge	QPSK	Full power	1	50	19100/1900	23.50	22.50	0.370	1.26	0.465	NO
			QPSK	Full power	50%	25	19100/1900	23.50	22.50	0.353	1.26	0.445	NO
		Top Edge	QPSK	Full power	1	50	19100/1900	23.50	22.50	0.214	1.26	0.269	NO
			QPSK	Full power	50%	25	19100/1900	23.50	22.50	0.201	1.26	0.253	NO
		Bottom Edge	QPSK	Full power	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NA
			QPSK	Full power	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NA
	ANT 1	Back Side	QPSK	Full power	1	50	18700/1860	23.30	16.00	0.124	5.37	0.665	NO
			QPSK	Full power	50%	0	18700/1860	23.30	16.00	0.152	5.37	0.819	NO
		Front Side	QPSK	Full power	1	50	18700/1860	23.30	16.00	0.082	5.37	0.441	NO
			QPSK	Full power	50%	0	18700/1860	23.30	16.00	0.086	5.37	0.464	NO
		Left Edge	QPSK	Full power	1	50	18700/1860	23.30	16.00	0.001	5.37	0.007	NO
			QPSK	Full power	50%	0	18700/1860	23.30	16.00	0.001	5.37	0.007	NO
		Right Edge	QPSK	Full power	1	50	18700/1860	23.30	16.00	0.001	5.37	0.007	NO
			QPSK	Full power	50%	0	18700/1860	23.30	16.00	0.001	5.37	0.007	NO
		Top Edge	QPSK	Full power	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NA
			QPSK	Full power	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NA
		Bottom Edge	QPSK	Full power	1	50	18700/1860	23.30	16.00	0.242	5.37	1.301	YES
			QPSK	Full power	50%	0	18700/1860	23.30	16.00	0.250	5.37	1.340	YES
LTE 4 (Original)	ANT 2	Back Side	QPSK	Full power	1	0	20050/1720	23.50	22.20	0.461	1.35	0.622	NO
			QPSK	Full power	50%	0	20050/1720	23.50	22.20	0.370	1.35	0.499	NO
		Front Side	QPSK	Full power	1	0	20050/1720	23.50	22.20	0.316	1.35	0.427	NO
			QPSK	Full power	50%	0	20050/1720	23.50	22.20	0.336	1.35	0.453	NO
		Left Edge	QPSK	Full power	N/A	N/A	N/A	N/A	N/A	NA	NA	NA	NA
			QPSK	Full power	N/A	N/A	N/A	N/A	N/A	NA	NA	NA	NA
		Right Edge	QPSK	Full power	1	0	20050/1720	23.50	22.20	0.334	1.35	0.451	NO
			QPSK	Full power	50%	0	20050/1720	23.50	22.20	0.322	1.35	0.435	NO
		Top Edge	QPSK	Full power	1	0	20050/1720	23.50	22.20	0.307	1.35	0.415	NO
			QPSK	Full power	50%	0	20050/1720	23.50	22.20	0.297	1.35	0.401	NO
		Bottom Edge	QPSK	Full power	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NA
			QPSK	Full power	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NA
LTE 7 (Original)	ANT 4	Back Side	QPSK	Full power	1	50	21100/2535	22.50	18.50	0.708	2.51	1.779	YES
			QPSK	Full power	50%	25	21100/2535	22.50	18.50	0.699	2.51	1.756	YES
		Front Side	QPSK	Full power	1	50	21100/2535	22.50	18.50	0.206	2.51	0.517	NO

			QPSK	Full power	50%	25	21100/2535	22.50	18.50	0.192	2.51	0.482	NO
		Left Edge	QPSK	Full power	1	50	21100/2535	22.50	18.50	0.944	2.51	2.372	YES
			QPSK	Full power	50%	25	21100/2535	22.50	18.50	0.984	2.51	2.472	YES
		Right Edge	QPSK	Full power	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
			QPSK	Full power	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
		Top Edge	QPSK	Full power	1	50	21100/2535	22.50	18.50	0.090	2.51	0.225	NO
			QPSK	Full power	50%	25	21100/2535	22.50	18.50	0.097	2.51	0.245	NO
		Bottom Edge	QPSK	Full power	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
			QPSK	Full power	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
LTE 25 (Original)	ANT 2	Back Side	QPSK	Full power	1	50	26590/1905	23.50	22.50	0.504	1.26	0.634	NO
			QPSK	Full power	50%	0	26590/1905	23.50	22.50	0.506	1.26	0.637	NO
		Front Side	QPSK	Full power	1	50	26590/1905	23.50	22.50	0.377	1.26	0.474	NO
			QPSK	Full power	50%	0	26590/1905	23.50	22.50	0.396	1.26	0.499	NO
		Left Edge	QPSK	Full power	N/A	N/A	N/A	N/A	N/A	NA	NA	NA	NA
			QPSK	Full power	N/A	N/A	N/A	N/A	N/A	NA	NA	NA	NA
		Right Edge	QPSK	Full power	1	50	26590/1905	23.50	22.50	0.453	1.26	0.570	NO
			QPSK	Full power	50%	0	26590/1905	23.50	22.50	0.452	1.26	0.569	NO
		Top Edge	QPSK	Full power	1	50	26590/1905	23.50	22.50	0.298	1.26	0.376	NO
			QPSK	Full power	50%	0	26590/1905	23.50	22.50	0.299	1.26	0.377	NO
		Bottom Edge	QPSK	Full power	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NA
			QPSK	Full power	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NA
LTE 41 Power Class 3 (Original)	ANT 4	Back Side	QPSK	Full power	1	50	41490/2680	23.00	22.00	0.650	1.26	0.819	NO
			QPSK	Full power	50%	25	41490/2680	23.00	21.00	0.516	1.58	0.818	NO
		Front Side	QPSK	Full power	1	50	41490/2680	23.00	22.00	0.166	1.26	0.209	NO
			QPSK	Full power	50%	25	41490/2680	23.00	21.00	0.131	1.58	0.208	NO
		Left Edge	QPSK	Full power	1	50	41490/2680	23.00	22.00	0.785	1.26	0.989	NO
			QPSK	Full power	50%	25	41490/2680	23.00	21.00	0.654	1.58	1.036	NO
		Right Edge	QPSK	Full power	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
			QPSK	Full power	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
		Top Edge	QPSK	Full power	1	50	41490/2680	23.00	22.00	0.081	1.26	0.102	NO
			QPSK	Full power	50%	25	41490/2680	23.00	21.00	0.067	1.58	0.106	NO
		Bottom Edge	QPSK	Full power	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
			QPSK	Full power	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
LTE 41 Power Class 2 (Original)	ANT 4	Back Side	QPSK	Full power	1	50	41490/2680	25.50	24.50	0.846	1.26	1.065	NO
			QPSK	Full power	50%	25	41490/2680	25.50	24.50	0.863	1.26	1.087	NO
		Front Side	QPSK	Full power	1	50	41490/2680	25.50	24.50	0.197	1.26	0.247	NO
			QPSK	Full power	50%	25	41490/2680	25.50	24.50	0.200	1.26	0.252	NO
		Left Edge	QPSK	Full power	1	50	41490/2680	25.50	24.50	1.132	1.26	1.425	YES
			QPSK	Full power	50%	25	41490/2680	25.50	24.50	1.109	1.26	1.397	YES
		Right Edge	QPSK	Full power	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
			QPSK	Full power	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
		Top Edge	QPSK	Full power	1	50	41490/2680	25.50	24.50	0.098	1.26	0.124	NO
			QPSK	Full power	50%	25	41490/2680	25.50	24.50	0.098	1.26	0.123	NO

		Bottom Edge	QPSK	Full power	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
			QPSK	Full power	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
LTE 48 (Original)	ANT 2	Back Side	QPSK	Full power	1	99	56340/3660	20.50	20.00	0.403	1.12	0.452	NO
			QPSK	Full power	50%	50	56640/3690	20.50	20.00	0.387	1.12	0.434	NO
		Front Side	QPSK	Full power	1	99	56340/3660	20.50	20.00	0.110	1.12	0.123	NO
			QPSK	Full power	50%	50	56640/3690	20.50	20.00	0.125	1.12	0.141	NO
		Left Edge	QPSK	Full power	N/A	N/A	N/A	N/A	N/A	NA	NA	NA	N/A
			QPSK	Full power	N/A	N/A	N/A	N/A	N/A	NA	NA	NA	N/A
		Right Edge	QPSK	Full power	1	99	56340/3660	20.50	20.00	0.462	1.12	0.518	NO
			QPSK	Full power	50%	50	56640/3690	20.50	20.00	0.380	1.12	0.426	NO
		Top Edge	QPSK	Full power	1	99	56340/3660	20.50	20.00	0.270	1.12	0.303	NO
			QPSK	Full power	50%	50	56640/3690	20.50	20.00	0.298	1.12	0.335	NO
		Bottom Edge	QPSK	Full power	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
			QPSK	Full power	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
LTE 66 (Original)	ANT 2	Back Side	QPSK	Full power	1	0	132072/1720	23.50	22.20	0.262	1.35	0.354	NO
			QPSK	Full power	50%	0	132072/1720	23.50	22.20	0.259	1.35	0.349	NO
		Front Side	QPSK	Full power	1	0	132072/1720	23.50	22.20	0.242	1.35	0.327	NO
			QPSK	Full power	50%	0	132072/1720	23.50	22.20	0.249	1.35	0.335	NO
		Left Edge	QPSK	Full power	N/A	N/A	N/A	N/A	N/A	NA	NA	NA	NA
			QPSK	Full power	N/A	N/A	N/A	N/A	N/A	NA	NA	NA	NA
		Right Edge	QPSK	Full power	1	0	132072/1720	23.50	22.20	0.247	1.35	0.334	NO
			QPSK	Full power	50%	0	132072/1720	23.50	22.20	0.235	1.35	0.317	NO
		Top Edge	QPSK	Full power	1	0	132072/1720	23.50	22.20	0.281	1.35	0.380	NO
			QPSK	Full power	50%	0	132072/1720	23.50	22.20	0.274	1.35	0.369	NO
		Bottom Edge	QPSK	Full power	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NA
			QPSK	Full power	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NA
	ANT 1	Back Side	QPSK	Full power	1	50	132572/1770	23.30	15.00	0.234	6.76	1.585	YES
			QPSK	Full power	50%	50	132572/1770	23.30	15.00	0.225	6.76	1.518	YES
		Front Side	QPSK	Full power	1	50	132572/1770	23.30	15.00	0.097	6.76	0.654	NO
			QPSK	Full power	50%	50	132572/1770	23.30	15.00	0.088	6.76	0.597	NO
		Left Edge	QPSK	Full power	1	50	132572/1770	23.30	15.00	0.001	6.76	0.010	NO
			QPSK	Full power	50%	50	132572/1770	23.30	15.00	0.001	6.76	0.010	NO
		Right Edge	QPSK	Full power	1	50	132572/1770	23.30	15.00	0.001	6.76	0.010	NO
			QPSK	Full power	50%	50	132572/1770	23.30	15.00	0.001	6.76	0.010	NO
		Top Edge	QPSK	Full power	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
			QPSK	Full power	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
		Bottom Edge	QPSK	Full power	1	50	132572/1770	23.30	15.00	0.280	6.76	1.892	YES
			QPSK	Full power	50%	50	132572/1770	23.30	15.00	0.267	6.76	1.802	YES

Band	Antenna	Test Position	Type	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 Test
NR n30	ANT 4	Back Side	SA	DFT-s-	Hotspot on	1	1	462000/2310	22.00	21.00	1.110	1.26	1.398	YES

(Original)				OFDM	Hotspot on	50%	12	462000/2310	22.00	21.00	1.048	1.26	1.319	YES
		Front Side		QPSK	Hotspot on	1	1	462000/2310	22.00	21.00	0.194	1.26	0.244	NO
					Hotspot on	50%	12	462000/2310	22.00	21.00	0.202	1.26	0.254	NO
		Left Edge			Hotspot on	1	1	462000/2310	22.00	21.00	0.691	1.26	0.870	NO
					Hotspot on	50%	12	462000/2310	22.00	21.00	0.697	1.26	0.877	NO
		Right Edge			Hotspot on	1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NA
					Hotspot on	50%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NA
		Top Edge			Hotspot on	1	1	462000/2310	22.00	21.00	0.106	1.26	0.134	NO
					Hotspot on	50%	12	462000/2310	22.00	21.00	0.098	1.26	0.123	NO
		Bottom Edge			Hotspot on	1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NA
					Hotspot on	50%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NA
NR n41 Power Class 2 (Original)	ANT 4	Back Side	SA& NSA	DFT-s-OFDM QPSK	Hotspot on	1	1	509202/2546.01	21.00	19.00	0.781	1.58	1.238	YES
					Hotspot on	50%	67	509202/2546.01	21.00	19.00	0.783	1.58	1.241	YES
		Front Side			Hotspot on	1	1	509202/2546.01	21.00	19.00	0.225	1.58	0.356	NO
					Hotspot on	50%	67	509202/2546.01	21.00	19.00	0.212	1.58	0.336	NO
		Left Edge			Hotspot on	1	1	509202/2546.01	21.00	19.00	0.760	1.58	1.205	YES
					Hotspot on	50%	67	509202/2546.01	21.00	19.00	0.748	1.58	1.186	NO
		Right Edge			Hotspot on	1	1	NA	NA	NA	NA	NA	NA	NA
					Hotspot on	50%	67	NA	NA	NA	NA	NA	NA	NA
		Top Edge			Hotspot on	1	1	509202/2546.01	21.00	19.00	0.106	1.58	0.168	NO
					Hotspot on	50%	67	509202/2546.01	21.00	19.00	0.103	1.58	0.163	NO
		Bottom Edge			Hotspot on	1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NA
					Hotspot on	50%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NA
NR n48 (Variant)	Main ANT2	Back Side	SA	DFT-s-OFDM QPSK	Full Power	1	1	643332/3649.98	19.00	18.50	0.580	1.12	0.651	NO
					Full Power	50%	67	640000/3600	19.00	18.50	0.552	1.12	0.619	NO
		Front Side			Full Power	1	1	643332/3649.98	19.00	18.50	0.086	1.12	0.097	NO
					Full Power	50%	67	640000/3600	19.00	18.50	0.053	1.12	0.060	NO
		Left Edge			Full Power	1	1	643332/3649.98	19.00	18.50	0.048	1.12	0.054	NO
					Full Power	50%	67	640000/3600	19.00	18.50	0.060	1.12	0.068	NO
		Right Edge			Full Power	1	1	643332/3649.98	19.00	18.50	0.770	1.12	0.864	NO
					Full Power	50%	67	640000/3600	19.00	18.50	0.717	1.12	0.805	NO
		Top Edge			Full Power	1	1	643332/3649.98	19.00	18.50	0.214	1.12	0.240	NO
					Full Power	50%	67	640000/3600	19.00	18.50	0.299	1.12	0.336	NO
		Bottom Edge			Full Power	1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
					Full Power	50%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Product-specific 10g 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.
LTE 2 (Original)	ANT 1	Bottom Edge	0	QPSK	Receiver off	1	50	18700/1860	20.00	18.62	0.657	-0.080	1.37	0.903	/
		Bottom Edge	0	QPSK	Receiver off	50%	50	18700/1860	20.00	18.56	0.850	0.022	1.39	1.184	121
LTE 7 (Original)	ANT 4	Back Side	0	QPSK	Receiver off	1	50	21100/2535	19.30	18.30	1.130	-0.050	1.26	1.423	/
		Back Side	0	QPSK	Receiver off	50%	25	21100/2535	19.30	18.35	1.130	-0.060	1.24	1.406	/
		Left Edge	0	QPSK	Receiver off	1	50	21100/2535	19.30	18.30	1.660	0.090	1.26	2.090	/
		Left Edge	0	QPSK	Receiver off	1	50	20850/2510	19.30	18.16	1.990	0.010	1.30	2.587	/
		Left Edge	0	QPSK	Receiver off	1	99	21350/2560	19.30	18.30	1.570	0.026	1.26	1.977	/
		Left Edge	0	QPSK	Receiver off	50%	25	21100/2535	19.30	18.35	1.650	0.080	1.24	2.053	/
		Left Edge	0	QPSK	Receiver off	50%	50	20850/2510	19.30	18.21	2.020	0.023	1.29	2.596	122
		Left Edge	0	QPSK	Receiver off	50%	0	21350/2560	19.30	18.32	1.880	0.034	1.25	2.356	/
		Left Edge	0	QPSK	Receiver off	100%	0	21100/2535	19.30	18.27	1.920	-0.011	1.27	2.434	/
		Left Edge	0	QPSK	Receiver off	100%	0	20850/2510	19.30	18.12	1.850	0.032	1.31	2.428	/
		Left Edge	0	QPSK	Receiver off	100%	0	21350/2560	19.30	18.30	1.810	0.028	1.26	2.279	/
LTE 41 Power Class 2 (Original)	ANT 4	Left Edge	0	QPSK	Receiver off	1	50	41055/2636.5	23.50	22.32	0.840	0.025	1.31	1.102	123
		Left Edge	0	QPSK	Receiver off	50%	25	41055/2636.5	23.50	22.32	0.829	0.030	1.31	1.088	/
LTE 66 (Original)	ANT 1	Back Side	0	QPSK	Receiver off	1	50	132572/1770	19.00	17.25	0.594	0.092	1.50	0.889	/
		Back Side	0	QPSK	Receiver off	50%	50	132572/1770	19.00	17.35	0.569	0.160	1.46	0.832	/
		Bottom Edge	0	QPSK	Receiver off	1	50	132572/1770	19.00	17.25	0.725	0.092	1.50	1.085	/
		Bottom Edge	0	QPSK	Receiver off	50%	50	132572/1770	19.00	17.35	0.791	0.074	1.46	1.157	124

Band	Antenna	Test Position	Dist. (mm)	Type	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.
NR n30 (Original)	ANT 4	Back Side	0	NSA	DFT-s-OFDM QPSK	Receiver off	1	50	462000/2310	22.00	20.68	1.440	-0.100	1.36	1.951	/
			0			Receiver off	50%	12	462000/2310	22.00	20.72	1.480	0.064	1.34	1.987	125
NR n41 Power Class 2 (Original)	ANT 4	Back Side	0	SA& NSA	DFT-s-OFDM QPSK	Receiver off	1	1	509202/2546.01	20.50	19.14	1.650	0.030	1.37	2.257	/
			0			Receiver off	1	1	518598/2592.99	20.50	19.04	1.640	0.022	1.40	2.295	/
			0			Receiver off	1	1	528000/2640	20.50	19.07	1.590	0.027	1.39	2.210	/
			0			Receiver off	50%	67	509202/2546.01	20.50	19.74	1.950	0.013	1.19	2.323	/
			0			Receiver off	50%	67	518598/2592.99	20.50	19.67	1.770	-0.024	1.21	2.143	/
			0			Receiver off	50%	67	528000/2640	20.50	19.72	1.380	0.038	1.20	1.652	/
		Left Edge	0			Receiver off	1	1	509202/2546.01	20.50	19.14	2.030	0.050	1.37	2.776	/
			0			Receiver off	1	1	518598/2592.99	20.50	19.04	2.220	-0.024	1.40	3.107	/
			0			Receiver off	1	1	528000/2640	20.50	19.07	2.080	0.045	1.39	2.891	/
			0			Receiver off	50%	67	509202/2546.01	20.50	19.74	2.630	0.070	1.19	3.133	126
			0			Receiver off	50%	67	518598/2592.99	20.50	19.67	2.260	0.023	1.21	2.736	/

			0			Receiver off	50%	67	528000/2640	20.50	19.72	1.680	0.015	1.20	2.011	/
			0			Receiver off	100%	0	509202/2546.01	20.50	19.42	2.280	-0.060	1.28	2.924	/
			0			Receiver off	100%	0	518598/2592.99	20.50	19.36	2.020	0.090	1.30	2.626	/
			0			Receiver off	100%	0	528000/2640	20.50	19.41	1.610	0.051	1.29	2.069	/
			0		CP-OFDM QPSK	Receiver off	1	1	509202/2546.01	20.50	19.42	2.400	-0.031	1.28	3.078	/

10.3 Simultaneous Transmission Analysis

Simultaneous Transmission Configurations	Head	Body-worn	Hotspot	Product Specific 10-g SAR
2G/3G/4G/5G + Bluetooth	Yes	Yes	Yes	Yes
2G/3G/4G/5G + Wi-Fi 2.4GHz	Yes	Yes	Yes	Yes
2G/3G/4G/5G + Wi-Fi 5GHz	Yes	Yes	Yes	Yes
Wi-Fi 2.4GHz + Bluetooth	N/A	N/A	N/A	N/A
Wi-Fi 5GHz + Bluetooth	N/A	N/A	N/A	N/A
Wi-Fi 2.4GHz + Wi-Fi 5GHz	N/A	N/A	N/A	N/A

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 SAR1g Value for 2G/3G/4G Antenna

Test Position		SAR_{1g}(W/kg)	GSM 850	GSM 1900	WCDMA Band II	WCDMA Band IV	WCDMA Band V	LTE 2		LTE 4	LTE 5	LTE 7	LTE 12	LTE 13	LTE 25	LTE 26	LTE 41	LTE 48	LTE 66		LTE 71	MAX. SAR_{1g}
			ANT 0	ANT2	ANT 2	ANT 2	ANT 0	ANT 2	ANT 1	ANT 2	ANT 0	ANT 4	ANT 0	ANT 0	ANT 2	ANT 0	ANT 4	ANT 2	ANT 2	ANT 1	ANT 0	
Head	Left Cheek		0.896	1.077	1.221	1.117	1.142	1.192	0.212	1.134	1.177	0.655	0.792	1.011	1.319	1.110	0.530	0.171	1.350	0.218	0.705	1.350
	Left Tilt		0.940	0.473	0.505	0.599	1.069	0.461	0.160	0.509	0.976	0.225	0.696	0.706	0.430	0.996	0.244	0.299	0.432	0.108	0.557	1.069
	Right Cheek		0.979	0.446	0.523	0.471	1.085	0.484	0.148	0.434	0.764	1.080	0.656	0.731	0.437	1.070	1.028	0.081	0.436	0.156	0.500	1.085
	Right Tilt		0.915	0.517	0.592	0.541	0.767	0.495	0.183	0.398	1.093	0.484	0.630	0.711	0.428	1.073	0.470	0.111	0.406	0.120	0.614	1.093
Body worn	Back Side		0.288	0.246	0.530	0.288	0.122	0.426	0.205	0.252	0.248	0.392	0.196	0.279	0.318	0.271	0.403	0.182	0.252	0.486	0.337	0.530
	Front Side		0.201	0.194	0.431	0.221	0.095	0.401	0.125	0.150	0.194	0.107	0.092	0.226	0.201	0.175	0.142	0.026	0.192	0.196	0.239	0.431
Hotspot	Back Side		0.808	0.517	0.731	0.574	0.476	0.388	0.152	0.461	0.411	0.708	0.329	0.471	0.506	0.476	0.863	0.403	0.262	0.234	0.383	0.863
	Front Side		0.679	0.370	0.549	0.500	0.264	0.313	0.086	0.336	0.383	0.206	0.257	0.333	0.396	0.364	0.200	0.125	0.249	0.097	0.330	0.679
	Left Edge		0.557	0.053	0.073	0.081	0.172	0.000	0.001	0.000	0.220	0.984	0.260	0.287	0.000	0.249	1.132	0.000	0.000	0.001	0.370	1.132
	Right Edge		0.279	N/A	N/A	N/A	0.164	0.370	0.001	0.334	0.148	0.000	0.120	0.197	0.453	0.125	N/A	0.462	0.247	0.001	0.208	0.462
	Top Edge		0.983	0.362	0.492	0.470	0.657	0.214	0.000	0.307	0.608	0.097	0.430	0.488	0.299	0.568	0.098	0.298	0.281	0.000	0.341	0.983
	Bottom Edge		N/A	N/A	N/A	N/A	N/A	N/A	0.250	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.280	N/A	0.280
Product Specific 10-g SAR	Back Side		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1.423	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.889	N/A	1.423
	Front Side		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Left Edge		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2.596	N/A	N/A	N/A	N/A	1.102	N/A	N/A	N/A	N/A	2.596
	Right Edge		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Top Edge		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Bottom Edge		N/A	N/A	N/A	N/A	N/A	N/A	1.184	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1.157	N/A	1.184

The Maximum SAR_{1g} Value for 5G NR Antenna

SAR_{1g}(W/kg)		NR n2	NR n5		NR n25		NR n30	NR n41	NR n48	NR n66		NR n71	NR n77	MAX. SAR_{1g}
		ANT 2	ANT 0		ANT 2		ANT 4	ANT 4	ANT 2	ANT 2		ANT 0	ANT 2	
Test Position		NSA	SA	NSA	SA	NSA	NSA	SA&NSA	SA	SA	NSA	SA&NSA	NSA	
Head	Left Cheek	0.722	0.863	0.594	0.717		0.262	0.424	0.246	1.290	0.553	0.738	0.290	1.290
	Left Tilt	0.297	0.706	0.486	0.423		0.142	0.208	0.411	0.705	0.355	0.660	0.686	0.706
	Right Cheek	0.356	0.822	0.484	0.343		0.654	0.776	0.152	0.604	0.289	0.700	0.208	0.822
	Right Tilt	0.314	0.797	0.449	0.330		0.237	0.354	0.229	0.664	0.343	0.643	0.279	0.797
Body worn	Back Side	0.521	0.285		0.499		0.749	0.555	0.450	0.359		0.278	0.399	0.749
	Front Side	0.399	0.218		0.442		0.173	0.139	0.073	0.315		0.146	0.056	0.442
Hotspot	Back Side	0.437	0.573		1.065	0.401	0.757	0.783	0.580	0.706		0.411	0.609	1.065
	Front Side	0.349	0.446		0.700		0.200	0.225	0.086	0.562		0.268	0.159	0.700
	Left Edge	0.072	0.406		0.096		0.690	0.760	0.060	0.085		0.363	0.055	0.760
	Right Edge	0.445	0.212		0.914	0.444	N/A	N/A	0.770	0.705		0.164	0.526	1.125
	Top Edge	0.222	0.626		0.629		0.106	0.106	0.299	0.698		0.336	0.547	0.698
	Bottom Edge	N/A	N/A		N/A		N/A	N/A	N/A	N/A		N/A	N/A	N/A
Product Specific 10-g SAR	Back Side	N/A	N/A		N/A		1.987	2.323	N/A	N/A		N/A	N/A	2.323
	Front Side	N/A	N/A		N/A		N/A	N/A	N/A	N/A		N/A	N/A	N/A
	Left Edge	N/A	N/A		N/A		N/A	3.133	N/A	N/A		N/A	N/A	3.133
	Right Edge	N/A	N/A		N/A		N/A	N/A	N/A	N/A		N/A	N/A	N/A
	Top Edge	N/A	N/A		N/A		N/A	N/A	N/A	N/A		N/A	N/A	N/A
	Bottom Edge	N/A	N/A		N/A		N/A	N/A	N/A	N/A		N/A	N/A	N/A

The Maximum SAR_{1g} Value for 5G ENDC Antenna

Band		NR Full Power + LTE Full Power																						
		LTE 2	LTE 5	LTE 12	LTE 13	LTE 66	NR n2	NR n5	NR n25	NR n30	NR n41	NR n66	NR n71	NR n77	DC_2A-n2A	DC_5A-n2A	DC_12A-n2A	DC_13A-n2A	DC_66A-n2A	DC_2A-n5A	DC_66A-n5A	DC_2A-n25A	DC_12A-n25A	DC_66A-n25A	ENDC MAX
		ANT1	ANT0	ANT0	ANT0	ANT1	ANT2	ANT0	ANT2	ANT4	ANT4	ANT2	ANT0	ANT2	ANT1+2	ANT0+2	ANT0+2	ANT0+2	ANT1+2	ANT1+0	ANT1+0	ANT1+2	ANT0+2	ANT1+2	
Head	Left cheek	0.212	0.504	0.451	0.446	0.218	0.722	0.594	0.717	0.262	0.424	0.553	0.738	0.290	0.934	1.226	1.173	1.168	0.940	0.806	0.812	0.929	1.168	0.935	1.226
	Left Tilt	0.160	0.466	0.412	0.425	0.108	0.297	0.486	0.423	0.142	0.208	0.355	0.660	0.686	0.457	0.763	0.709	0.722	0.405	0.646	0.594	0.583	0.835	0.531	0.835
	Right cheek	0.148	0.430	0.656	0.731	0.156	0.356	0.484	0.343	0.654	0.776	0.289	0.700	0.208	0.504	0.786	1.012	1.087	0.512	0.632	0.640	0.491	0.999	0.499	1.087
	Right Tilt	0.183	0.477	0.630	0.711	0.120	0.314	0.449	0.330	0.237	0.354	0.343	0.643	0.279	0.497	0.791	0.944	1.025	0.434	0.632	0.569	0.513	0.960	0.450	1.025
Body worn	Back Side	0.205	0.248	0.196	0.279	0.486	0.521	0.285	0.499	0.749	0.555	0.359	0.278	0.399	0.726	0.769	0.717	0.800	1.007	0.490	0.771	0.704	0.695	0.985	1.007
	Front Side	0.125	0.194	0.092	0.226	0.196	0.399	0.218	0.442	0.173	0.139	0.315	0.146	0.056	0.524	0.593	0.491	0.625	0.595	0.343	0.414	0.567	0.534	0.638	0.638
Hotspot	Back Side	0.152	0.411	0.329	0.471	0.234	0.437	0.573	0.401	0.757	0.783	0.706	0.411	0.609	0.589	0.848	0.766	0.908	0.671	0.725	0.807	0.553	0.730	0.635	0.908
	Front Side	0.086	0.383	0.257	0.333	0.097	0.349	0.446	0.700	0.200	0.225	0.562	0.268	0.159	0.435	0.732	0.606	0.682	0.446	0.532	0.543	0.786	0.957	0.797	0.957
	Left Edge	0.001	0.220	0.260	0.287	0.001	0.072	0.406	0.096	0.690	0.760	0.085	0.363	0.055	0.073	0.292	0.332	0.359	0.073	0.407	0.407	0.097	0.356	0.097	0.760
	Right Edge	0.001	0.148	0.120	0.197	0.001	0.445	0.212	0.444	N/A	N/A	0.705	0.164	0.526	0.446	0.593	0.565	0.642	0.446	0.213	0.213	0.445	0.564	0.445	0.705
	Top Edge	N/A	0.608	0.430	0.488	N/A	0.222	0.626	0.629	0.106	0.106	0.698	0.336	0.547	0.222	0.830	0.652	0.710	0.222	0.626	0.626	0.629	1.059	0.629	1.059
	Bottom Edge	0.250	N/A	N/A	N/A	0.280	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.250	0.000	0.000	0.000	0.280	0.250	0.280	0.250	0.000	0.280	0.280
Product-specific 10g SAR	Back Side	N/A	N/A	N/A	N/A	0.889	N/A	N/A	N/A	1.987	2.323	N/A	N/A	N/A	0.000	0.000	0.000	0.000	0.889	0.000	0.889	0.000	0.000	0.889	2.323
	Front Side	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Left Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3.133	N/A	N/A	N/A	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	3.133
	Right Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	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	N/A	N/A	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Bottom Edge	1.184	N/A	N/A	N/A	1.157	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1.184	0.000	0.000	0.000	1.157	1.184	1.157	1.184	0.000	1.157	1.184

Band		NR Full Power + LTE Full Power																						
		DC_2A-n30A	DC_5A-n30A	DC_12A-n30A	DC_66A-n30A	DC_2A-n41A	DC_66A-n41A	DC_2A-n66A	DC_5A-n66A	DC_12A-n66A	DC_13A-n66A	DC_66A-n66A	DC_2A-n71A	DC_66A-n71A	DC_2A-n77A	DC_5A-n77A	DC_12A-n77A	DC_13A-n77A	DC_66A-n77A	ENDC MAX				
		ANT1+4	ANT0+4	ANT0+4	ANT1+4	ANT1+4	ANT1+4	ANT1+2	ANT0+2	ANT0+2	ANT0+2	ANT1+2	ANT1+0	ANT1+0	ANT1+2	ANT0+2	ANT0+2	ANT0+2	ANT1+2					
Head	Left cheek	0.474	0.766	0.713	0.480	0.636	0.642	0.765	1.057	1.004	0.999	0.771	0.950	0.956	0.502	0.794	0.741	0.736	0.508	1.057				
	Left Tilt	0.302	0.608	0.554	0.250	0.368	0.316	0.515	0.821	0.767	0.780	0.463	0.820	0.768	0.846	1.152	1.098	1.111	0.794	1.152				
	Right cheek	0.802	1.084	1.310	0.810	0.924	0.932	0.437	0.719	0.945	1.020	0.445	0.848	0.856	0.356	0.638	0.864	0.939	0.364	1.310				
	Right Tilt	0.420	0.714	0.867	0.357	0.537	0.474	0.526	0.820	0.973	1.054	0.463	0.826	0.763	0.462	0.756	0.909	0.990	0.399	1.054				
Body worn	Back Side	0.954	0.997	0.945	1.235	0.760	1.041	0.564	0.607	0.555	0.638	0.845	0.483	0.764	0.604	0.647	0.595	0.678	0.885	1.235				
	Front Side	0.298	0.367	0.265	0.369	0.264	0.335	0.440	0.509	0.407	0.541	0.511	0.271	0.342	0.181	0.250	0.148	0.282	0.252	0.541				
Hotspot	Back Side	0.909	1.168	1.086	0.991	0.935	1.017	0.858	1.117	1.035	1.177	0.940	0.563	0.645	0.761	1.020	0.938	1.080	0.843	1.177				
	Front Side	0.286	0.583	0.457	0.297	0.311	0.322	0.648	0.945	0.819	0.895	0.659	0.354	0.365	0.161	0.458	0.332	0.408	0.172	0.945				
	Left Edge	0.691	0.910	0.950	0.691	0.761	0.761	0.086	0.305	0.345	0.372	0.086	0.364	0.364	0.029	0.248	0.288	0.315	0.029	0.950				
	Right Edge	0.001	0.148	0.120	0.001	0.001	0.001	0.706	0.853	0.825	0.902	0.706	0.165	0.165	0.527	0.674	0.646	0.723	0.527	0.902				
	Top Edge	0.106	0.714	0.536	0.106	0.106	0.106	0.698	1.306	1.128	1.186	0.698	0.336	0.336	0.210	0.818	0.640	0.698	0.210	1.306				
	Bottom Edge	0.250	0.000	0.000	0.280	0.250	0.280	0.250	0.000	0.000	0.000	0.280	0.250	0.280	0.250	N/A	N/A	N/A	0.280	0.280				
Product-specific 10g SAR	Back Side	1.987	1.987	1.987	2.876	2.323	3.212	0.000	0.000	0.000	0.000	0.889	0.000	0.889	N/A	N/A	N/A	N/A	0.889	3.212				
	Front Side	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	N/A	N/A	N/A	N/A	N/A	0.000				
	Left Edge	0.000	0.000	0.000	0.000	3.133	3.133	0.000	0.000	0.000	0.000	0.000	0.000	0.000	N/A	N/A	N/A	N/A	N/A	3.133				
	Right Edge	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	N/A	N/A	N/A	N/A	N/A	0.000				
	Top Edge	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	N/A	N/A	N/A	N/A	N/A	0.000				
	Bottom Edge	1.184	0.000	0.000	1.157	1.184	1.157	1.184	0.000	0.000	0.000	1.157	1.184	1.157	1.184	N/A	N/A	N/A	1.157	1.184				

About Bluetooth, Wi-Fi and 2G/ 3G/ 4G /5G Antenna

Test Position	$SAR_{1g/10g}$(W/kg)	2G/ 3G/ 4G MAX. SAR_{1g}	5G NR MAX. SAR_{1g}	5G ENDC MAX. SAR_{1g}		Wi-Fi 2.4G	Wi-Fi 5G				Bluetooth	MAX. $\Sigma SAR_{1g/10g}$
							U-NII-1	U-NII-2A	U-NII-2C	U-NII-3		
		1	2	3	4	5	6	7	8	9	10	Max (1,2,3,4) + Max (5,6,7,8,9,10)
Head	Left, Cheek	**1.350**	1.290	1.226	1.057	**0.215**	0.201	0.202	0.178	0.086	0.111	1.565
	Left, Tilt	1.069	0.706	0.835	**1.152**	0.170	**0.249**	0.235	0.140	0.186	0.079	1.401
	Right, Cheek	1.085	0.822	1.087	**1.310**	0.090	**0.138**	0.134	0.098	0.099	0.048	1.448
	Right, Tilt	**1.093**	0.797	1.025	1.054	0.077	**0.172**	0.171	0.145	0.132	0.042	1.265
Body worn	Back Side	0.530	0.749	1.007	**1.235**	0.165	0.289	0.264	**0.301**	0.043	0.028	1.536
	Front Side	0.431	0.442	**0.638**	0.541	0.168	0.163	0.180	0.230	**0.386**	0.018	1.024
Hotspot	Back Side	0.863	1.065	0.908	**1.177**	**0.242**	0.104	0.089	0.061	0.021	0.028	1.419
	Front Side	0.679	0.700	**0.957**	0.945	**0.456**	0.218	0.277	0.256	0.415	0.018	1.413
	Left Edge	**1.132**	0.760	0.760	0.950	0.030	0.077	0.088	0.081	**0.097**	0.006	1.229
	Right Edge	0.462	**1.125**	0.705	0.902	0.178	0.122	0.080	0.058	0.022	0.001	1.303
	Top Edge	0.983	0.698	1.059	**1.306**	0.142	0.170	**0.242**	0.121	0.224	0.015	1.548
	Bottom Edge	**0.280**	N/A	**0.280**	**0.280**	N/A	N/A	N/A	N/A	N/A	N/A	0.280
Product Specific 10-g SAR	Back Side	1.423	2.323	2.323	**3.212**	N/A	N/A	N/A	N/A	N/A	N/A	3.212
	Front Side	0.000	N/A	0.000	0.000	N/A	N/A	N/A	N/A	N/A	N/A	0.000
	Left Edge	2.596	**3.133**	**3.133**	**3.133**	N/A	N/A	N/A	N/A	N/A	N/A	3.133
	Right Edge	0.000	N/A	0.000	0.000	N/A	N/A	N/A	N/A	N/A	N/A	0.000
	Top Edge	0.000	N/A	0.000	0.000	N/A	N/A	N/A	N/A	N/A	N/A	0.000
	Bottom Edge	**1.184**	N/A	**1.184**	**1.184**	N/A	N/A	N/A	N/A	N/A	N/A	1.184

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}

3. MAX. ΣSAR_{1g} =1.565 W/kg<1.6W/kg and MAX. ΣSAR_{10g} =3.212 W/kg<4 W/kg, so the Simultaneous transmission SAR with volume scan are not required for Bluetooth, Wi-Fi and 2G/ 3G/ 4G /5G Antenna.

11 Measurement Uncertainty

Per KDB865664 D01:
SAR measurement uncertainty analysis is required in SAR reports only when the highest measured SAR in a frequency band is ≥ 1.5 W/kg for 1-g SAR. The equivalent ratio (1.5/1.6) should be applied to extremity and occupational exposure conditions. The procedures described in IEEE Std 1528-2013 should be applied.

No.	Source	Evaluation Method	Uncertainty Component a_i (%)	Probability Distribution	Coverage Factor k	Weight c_i	Standard Uncertainty u_i' (%)	(Equivalent) Degree of Freedom V_{eff} or v_i
1	Measurement repeatability	A	0.5	Normal	1	1	0.5	9
	Measuring device							
2	- Probe calibration	B	6.65	Normal	1	1	6.65	∞
3	- Axial isotropy of probe	B	4.7	Rectangular	$\sqrt{3}$	$\sqrt{0.5}$	1.9	∞
4	- Spherical isotropy of probe	B	9.4	Rectangular	$\sqrt{3}$	$\sqrt{0.5}$	3.9	∞
5	- Boundary effect	B	1.9	Rectangular	$\sqrt{3}$	1	1.1	∞
6	- Linearity of probe	B	4.7	Rectangular	$\sqrt{3}$	1	2.7	∞
7	- Detection limit	B	1.0	Rectangular	$\sqrt{3}$	1	0.6	∞
8	- Electronic reading	B	1.0	Normal	1	1	1.0	∞
9	- Response time	B	0	Rectangular	$\sqrt{3}$	1	0	∞
10	- Integration time	B	4.32	Rectangular	$\sqrt{3}$	1	2.5	∞
11	- Noise	B	0	Rectangular	$\sqrt{3}$	1	0	∞
12	- Reflection	B	3	Rectangular	$\sqrt{3}$	1	1.73	∞
13	- Mechanical positioning of probe	B	0.4	Rectangular	$\sqrt{3}$	1	0.2	∞
14	- Probe and human body model positioning	B	2.9	Rectangular	$\sqrt{3}$	1	1.7	∞
15	- SAR extrapolation and interpolation	B	3.9	Rectangular	$\sqrt{3}$	1	2.3	∞
	Uncertainties related to DUT							
16	- DUT location	A	2.9	Normal	1	1	4.92	71

17	- DUT fixture	A	4.1	Normal	1	1	4.1	5
18	- Output power drift	B	5.0	Rectangular	$\sqrt{3}$	1	2.9	∞
	Physical parameters							
18	- Shell of human body model	B	4.0	Rectangular	$\sqrt{3}$	1	2.3	∞
19	- Liquid conductivity (deviation from target value)	B	5.0	Rectangular	$\sqrt{3}$	0.64	1.8	∞
20	- Liquid conductivity (measurement error)	B	0.77	Normal	1	0.64	0.493	9
21	- Liquid dielectric constant (deviation from target value)	B	5.0	Rectangular	$\sqrt{3}$	0.6	1.7	∞
22	- Liquid dielectric constant (measurement error)	B	0.29	Normal	1	0.6	0.174	9
Combined standard uncertainty		$u_c^{'} = \sqrt{\sum_{i=1}^{21} c_i^2 u_i^2}$					11.36	
Expanded uncertainty (95% confidence interval)		$u_e = 2u_c$		Normal	k=2		22.72	

Therefore, the combined relative standard uncertainty is

$$u_c^{'} = \sqrt{\sum_{i=1}^{21} c_i^2 u_i^{'2}}$$

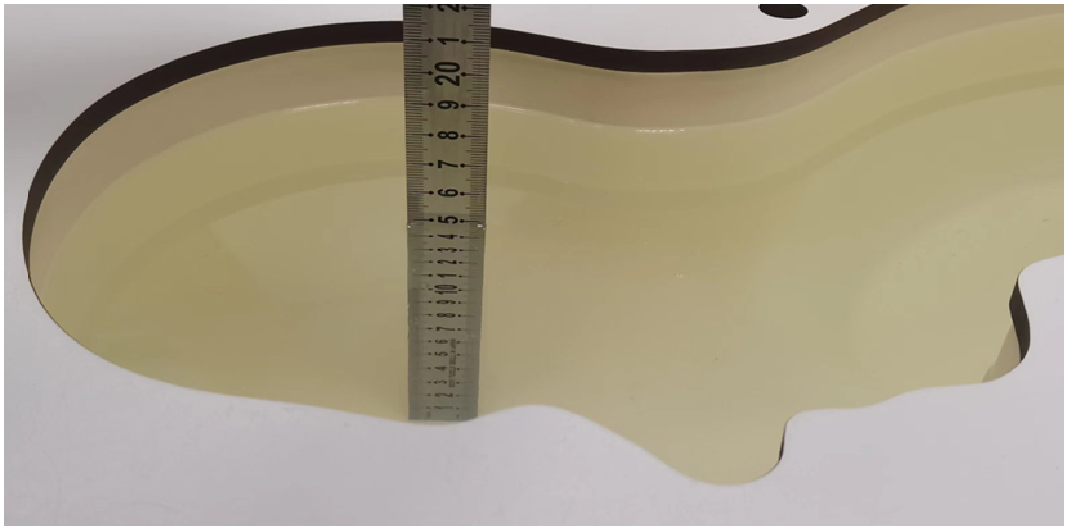
= 11.36%

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

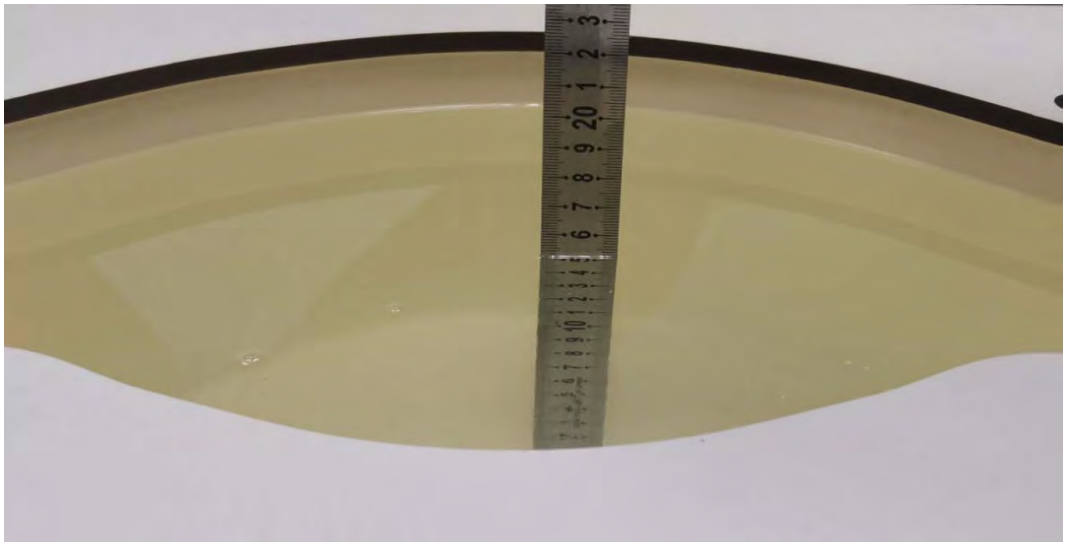
ANNEX A: Test Layout

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 tissue simulating liquid. For SAR testing, the liquid height from the center of the flat phantom to the liquid top surface is ＞15 cm, which is shown as below.



Picture 3: liquid depth in the head Phantom



Picture 4: Liquid depth in the flat Phantom

ANNEX B: System Check Results

(Original)

Plot 1 System Performance Check at 750 MHz TSL

DUT: Dipole 750 MHz; Type: D750V3; Serial: D750V3

Date: 2022/12/3

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

Medium parameters used: f = 750 MHz; σ = 0.88 S/m; ε_r = 42.3; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(9.63, 9.63, 9.63); Calibrated: 2022/7/8

Electronics: DAE4 SN1291; Calibrated: 2022/3/24

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) = 2.29 W/kg

d=15mm,Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 50.653 V/m; Power Drift = -0.08 dB

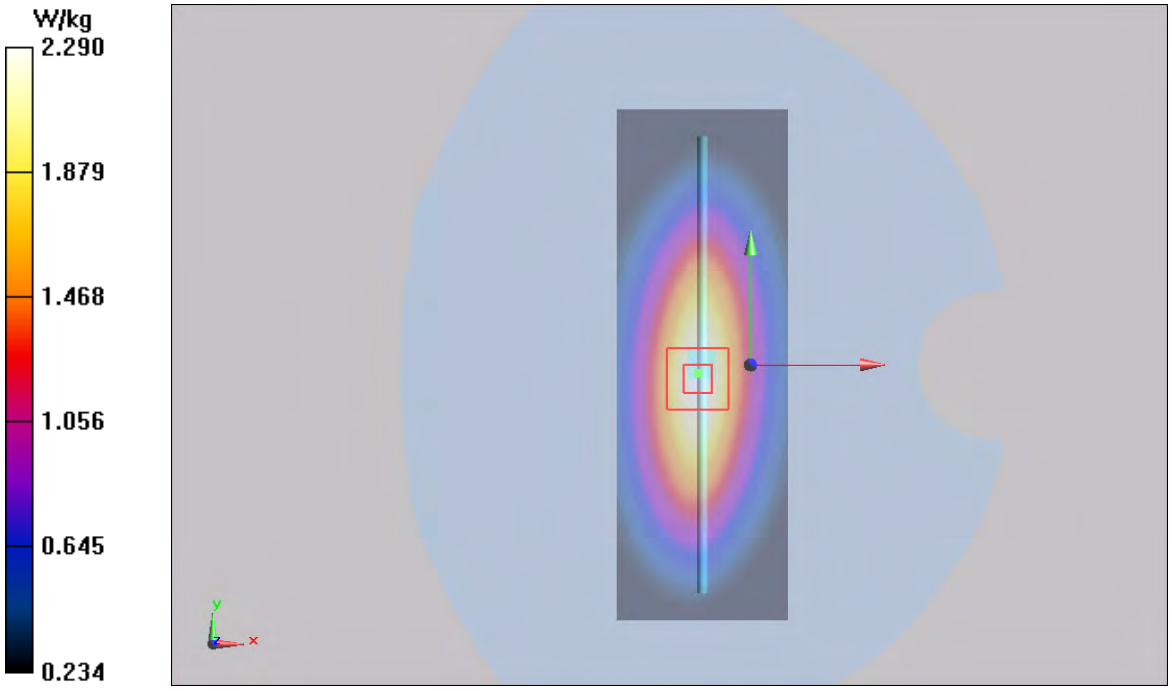
Peak SAR (extrapolated) = 3.16 W/kg

SAR(1 g) = 2.13 W/kg; SAR(10 g) = 1.41 W/kg

Smallest distance from peaks to all points 3 dB below = 10 mm

Ratio of SAR at M2 to SAR at M1 = 68.7%

Maximum value of SAR (measured) = 2.29 W/kg



Plot 2 System Performance Check at 750 MHz TSL

DUT: Dipole 750 MHz; Type: D750V3; Serial: D750V3

Date: 2022/12/5

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

Medium parameters used: f = 750 MHz; σ = 0.87 S/m; ε_r = 42.0; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(9.63, 9.63, 9.63); Calibrated: 2022/7/8

Electronics: DAE4 SN1291; Calibrated: 2022/3/24

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) = 2.31 W/kg

d=15mm,Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 50.557 V/m; Power Drift = 0.11 dB

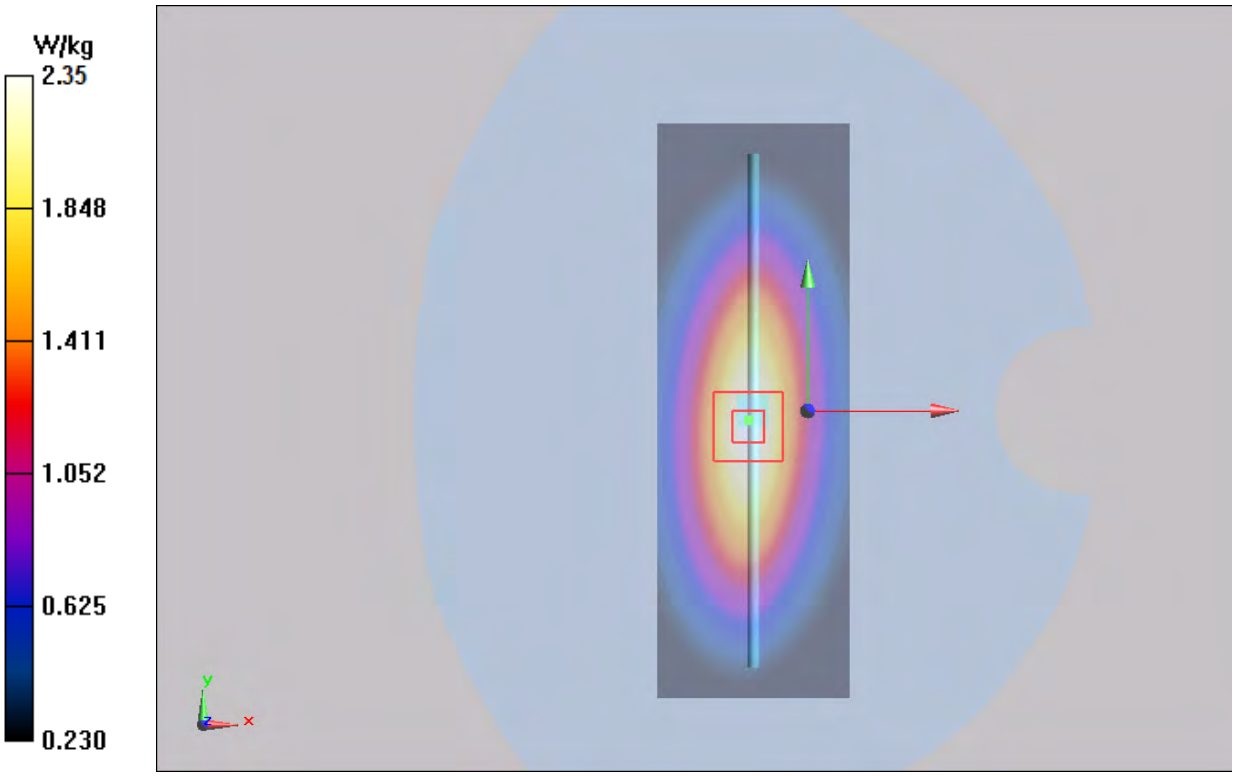
Peak SAR (extrapolated) = 3.14 W/kg

SAR(1 g) = 2.10 W/kg; SAR(10 g) = 1.37 W/kg

Smallest distance from peaks to all points 3 dB below = 9.7 mm

Ratio of SAR at M2 to SAR at M1 = 65%

Maximum value of SAR (measured) = 2.35 W/kg



Plot 3 System Performance Check at 835 MHz TSL

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

Date: 2022/12/5

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

Medium parameters used: f = 835 MHz; σ = 0.88 S/m; ε_r = 41.4; 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 - SN3677; ConvF(9.34, 9.34, 9.34); Calibrated: 2022/7/8

Electronics: DAE4 SN1291; Calibrated: 2022/3/24

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 W/kg

d=15mm, Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

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

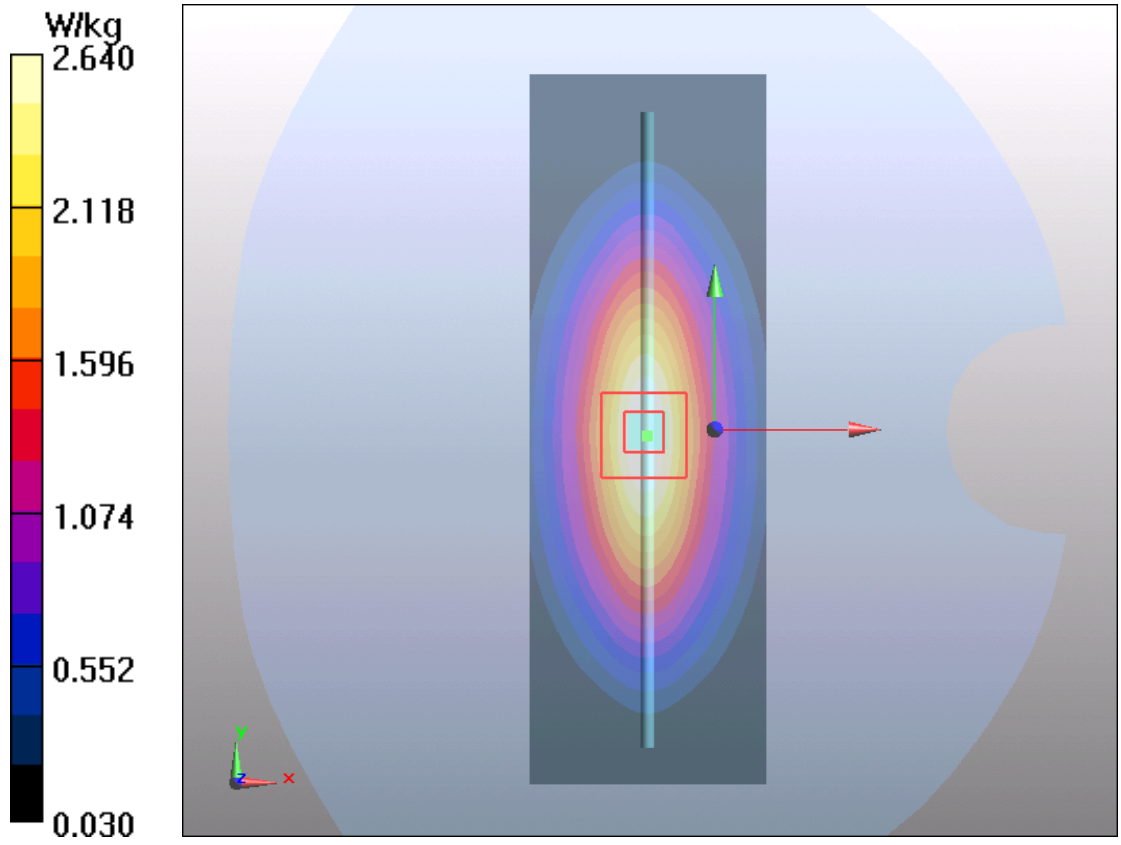
Peak SAR (extrapolated) = 3.67 W/kg

SAR(1 g) = 2.44 W/kg; SAR(10 g) = 1.6 W/kg

Smallest distance from peaks to all points 3 dB below = 16.6 mm

Ratio of SAR at M2 to SAR at M1 = 68.1%

Maximum value of SAR (measured) = 2.64 W/kg



Plot 4 System Performance Check at 835 MHz TSL

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

Date: 2022/12/18

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 - SN3677; ConvF(9.34, 9.34, 9.34); Calibrated: 2022/7/8

Electronics: DAE4 SN1291; Calibrated: 2022/3/24

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 W/kg

d=15mm, Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

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

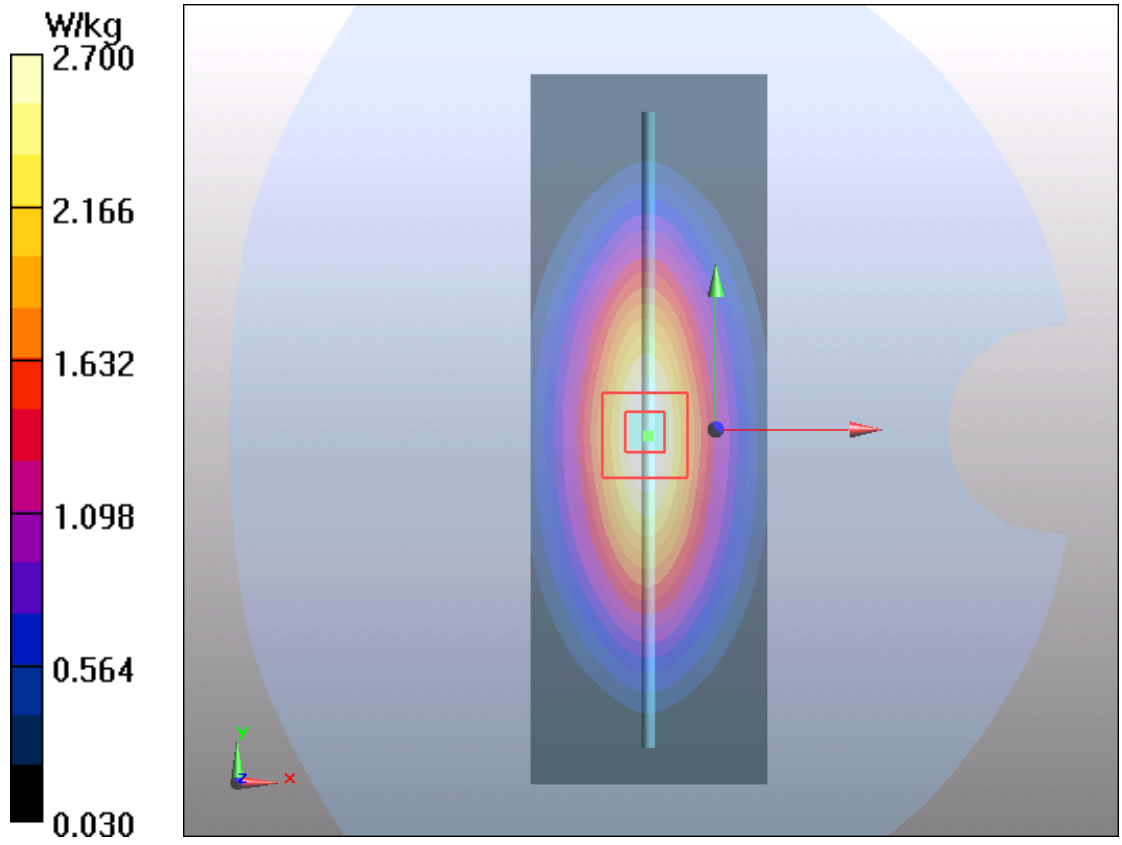
Peak SAR (extrapolated) = 3.67 W/kg

SAR(1 g) = 2.46 W/kg; SAR(10 g) = 1.65 W/kg

Smallest distance from peaks to all points 3 dB below = 15.7 mm

Ratio of SAR at M2 to SAR at M1 = 66.2%

Maximum value of SAR (measured) = 2.70 W/kg



Plot 5 System Performance Check at 835 MHz TSL

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

Date: 2022/12/22

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

Medium parameters used: f = 835 MHz; σ = 0.92 S/m; ε_r = 41.4; 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 - SN3677; ConvF(9.34, 9.34, 9.34); Calibrated: 2022/7/8

Electronics: DAE4 SN1291; Calibrated: 2022/3/24

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 W/kg

d=15mm, Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

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

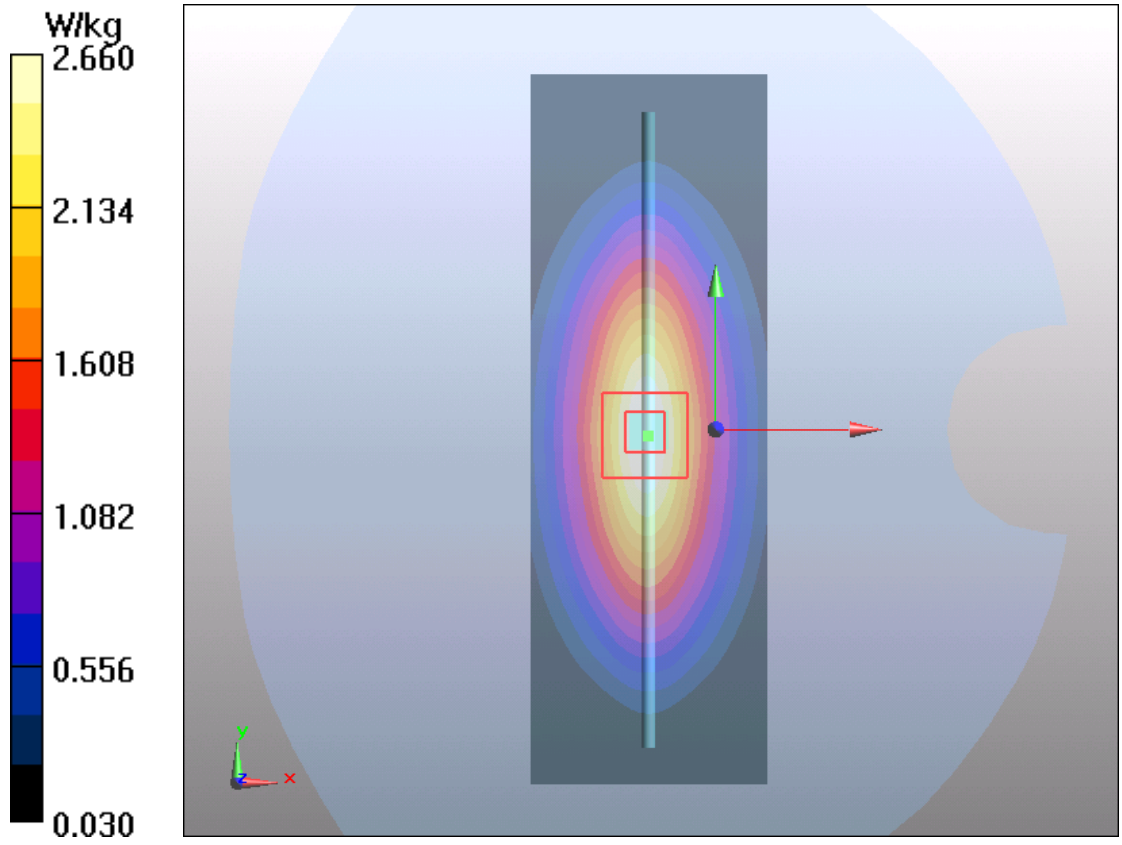
Peak SAR (extrapolated) = 3.67 W/kg

SAR(1 g) = 2.43 W/kg; SAR(10 g) = 1.61 W/kg

Smallest distance from peaks to all points 3 dB below = 16.6 mm

Ratio of SAR at M2 to SAR at M1 = 68.1%

Maximum value of SAR (measured) = 2.66 W/kg



Plot 6 System Performance Check at 1750 MHz TSL

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

Date: 2022/12/10

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

Medium parameters used: f = 1750 MHz; σ = 1.34 S/m; ε_r = 40.2; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(8.25, 8.25, 8.25); Calibrated: 2022/7/8

Electronics: DAE4 SN1291; Calibrated: 2022/3/24

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) = 9.35 W/kg

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

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

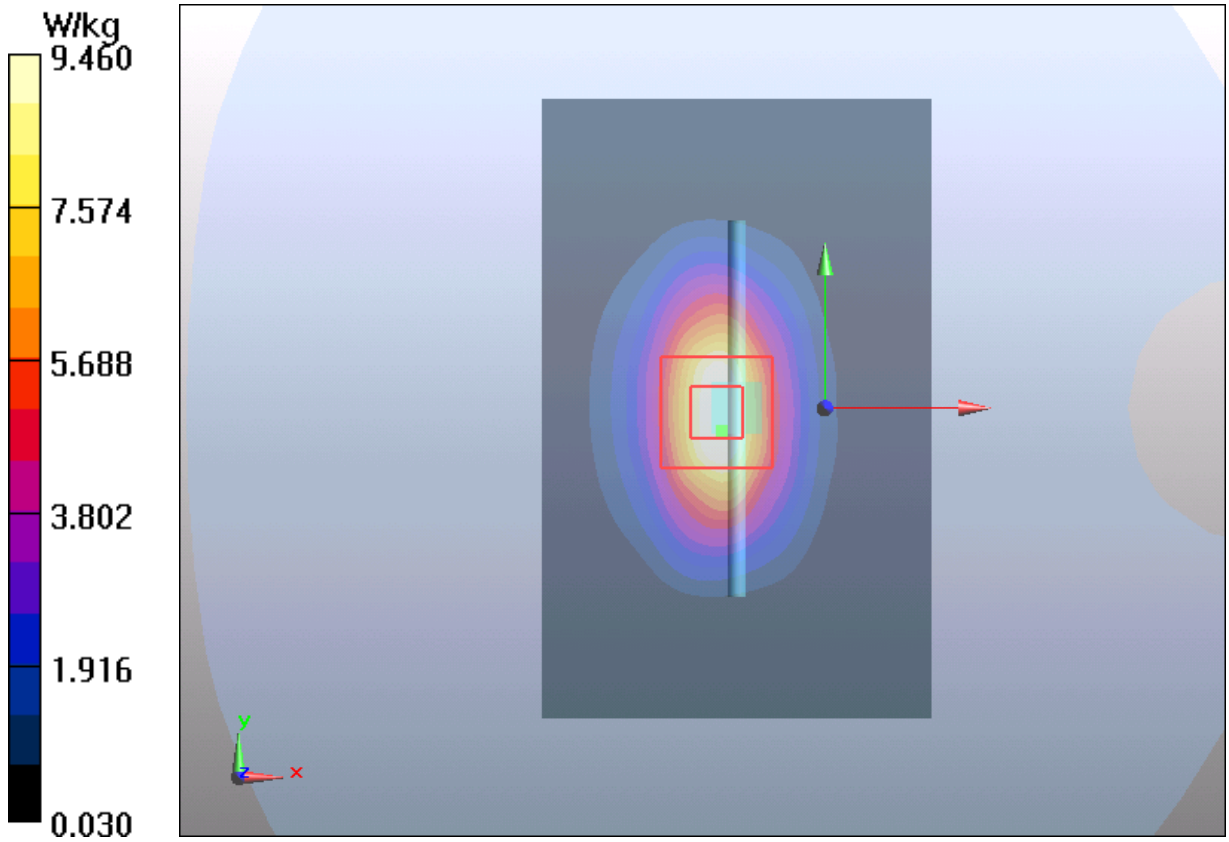
Peak SAR (extrapolated) = 15.5 W/kg

SAR(1 g) = 8.95 W/kg; SAR(10 g) = 4.5 W/kg

Smallest distance from peaks to all points 3 dB below = 10mm

Ratio of SAR at M2 to SAR at M1 = 53.5%

Maximum value of SAR (measured) = 9.46 W/kg



Plot 7 System Performance Check at 1750 MHz TSL

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

Date: 2022/12/17

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

Medium parameters used: f = 1750 MHz; σ = 1.34 S/m; ε_r = 40.1; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(8.25, 8.25, 8.25); Calibrated: 2022/7/8

Electronics: DAE4 SN1291; Calibrated: 2022/3/24

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 W/kg

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

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

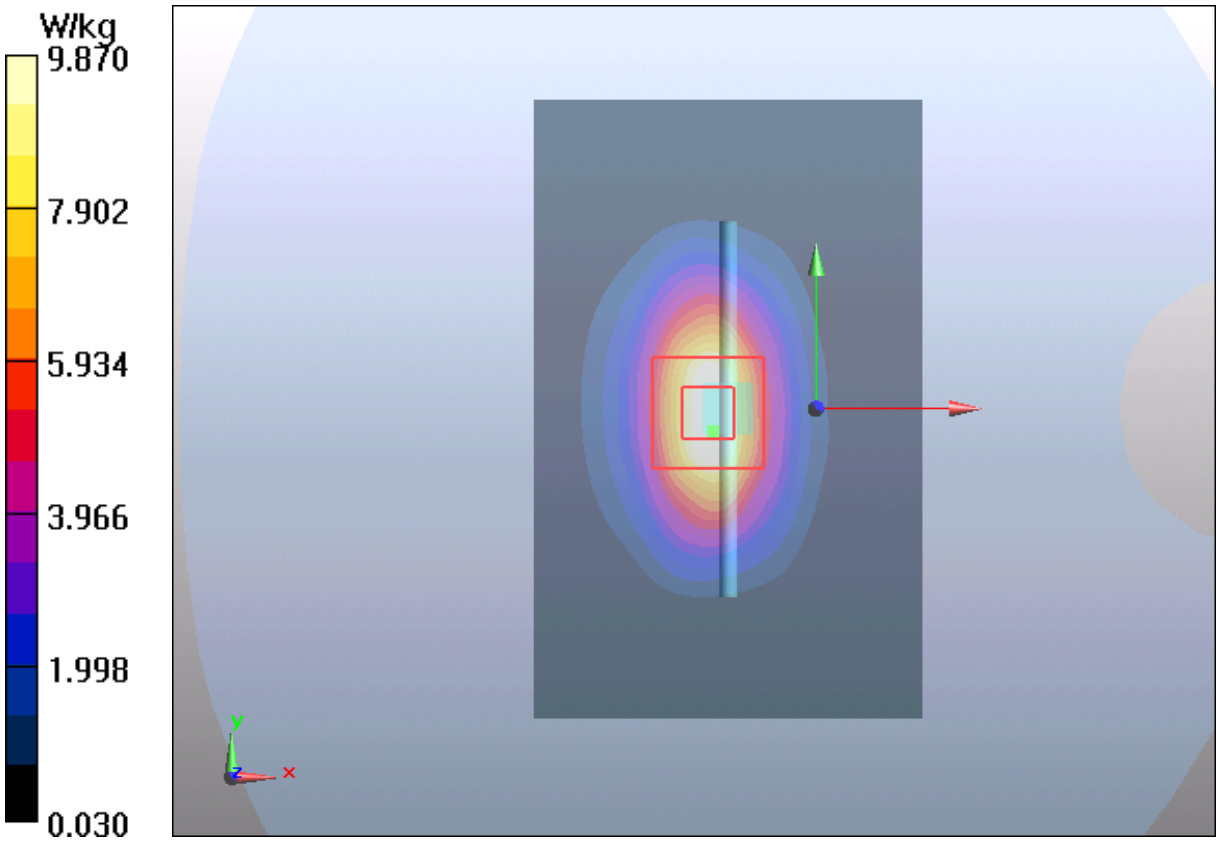
Peak SAR (extrapolated) = 15.51 W/kg

SAR(1 g) = 9.11 W/kg; SAR(10 g) = 4.77 W/kg

Smallest distance from peaks to all points 3 dB below = 8.9mm

Ratio of SAR at M2 to SAR at M1 = 52.6%

Maximum value of SAR (measured) = 9.87 W/kg



Plot 8 System Performance Check at 1750 MHz TSL

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

Date: 2022/12/18

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

Medium parameters used: f = 1750 MHz; σ = 1.36 S/m; ε_r = 40.2; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(8.25, 8.25, 8.25); Calibrated: 2022/7/8

Electronics: DAE4 SN1291; Calibrated: 2022/3/24

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) = 9.11 W/kg

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

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

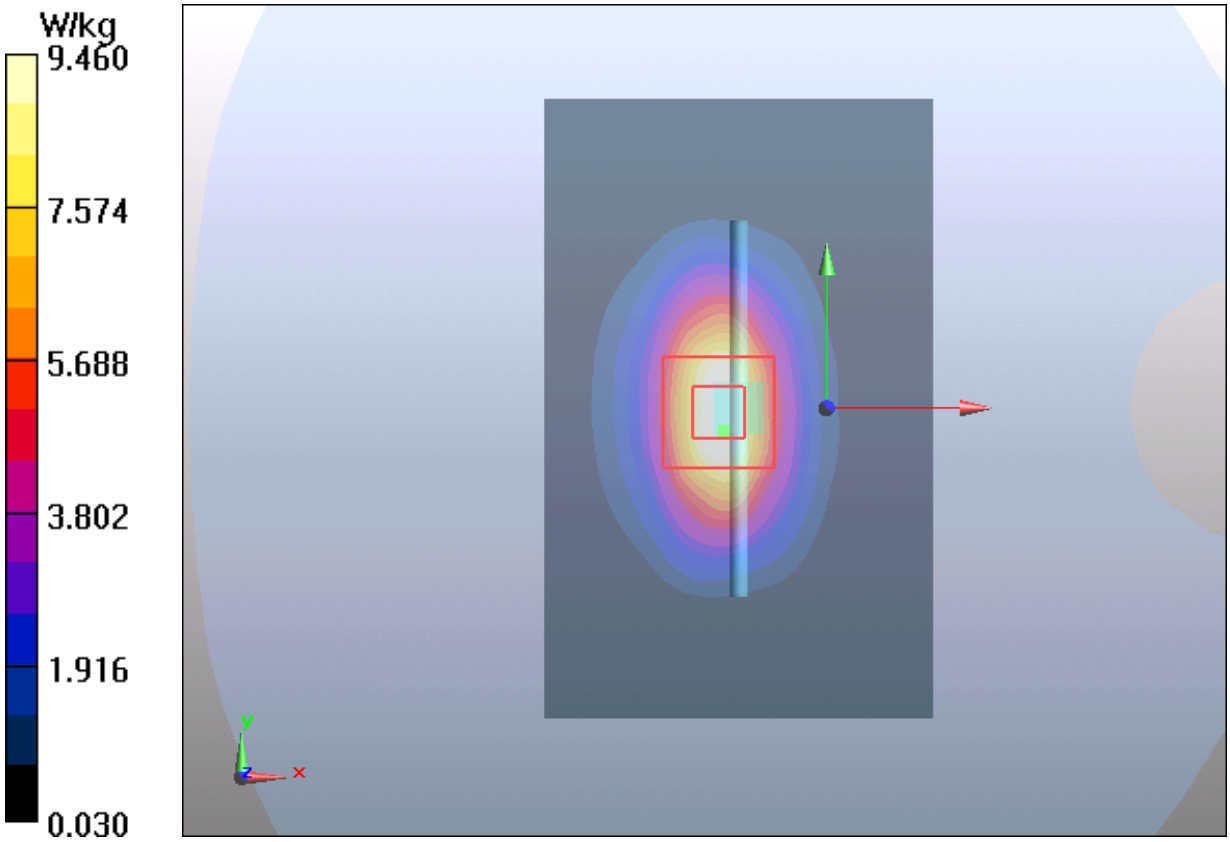
Peak SAR (extrapolated) = 15.47 W/kg

SAR(1 g) = 8.96 W/kg; SAR(10 g) = 4.75 W/kg

Smallest distance from peaks to all points 3 dB below = 9.5mm

Ratio of SAR at M2 to SAR at M1 = 53.1%

Maximum value of SAR (measured) = 9.46 W/kg



Plot 9 System Performance Check at 1750 MHz TSL

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

Date: 2022/12/20

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

Medium parameters used: f = 1750 MHz; σ = 1.37 S/m; ε_r = 39.3; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(8.25, 8.25, 8.25); Calibrated: 2022/7/8

Electronics: DAE4 SN1291; Calibrated: 2022/3/24

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) = 9.25 W/kg

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

Reference Value = 80 V/m; Power Drift = 0.028 dB

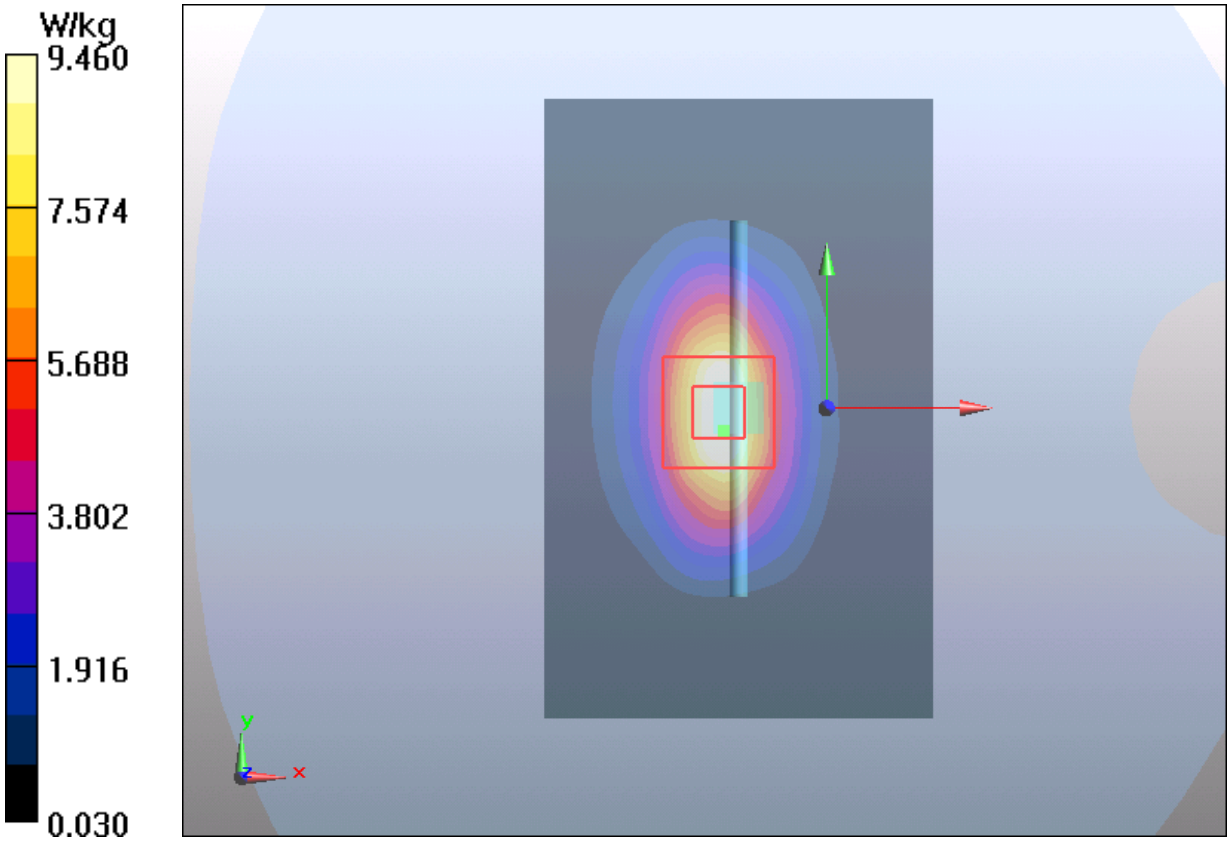
Peak SAR (extrapolated) = 14.83 W/kg

SAR(1 g) = 8.99 W/kg; SAR(10 g) = 4.77 W/kg

Smallest distance from peaks to all points 3 dB below = 9.2mm

Ratio of SAR at M2 to SAR at M1 = 52.8%

Maximum value of SAR (measured) = 9.46 W/kg



Plot 10 System Performance Check at 1900 MHz TSL

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

Date: 2022/12/4

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

Medium parameters used: f = 1900 MHz; σ = 1.41 S/m; ε_r = 40.1; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.84, 7.84, 7.84); Calibrated: 2022/7/8

Electronics: DAE4 SN1291; Calibrated: 2022/3/24

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) = 10.62 W/kg

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

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

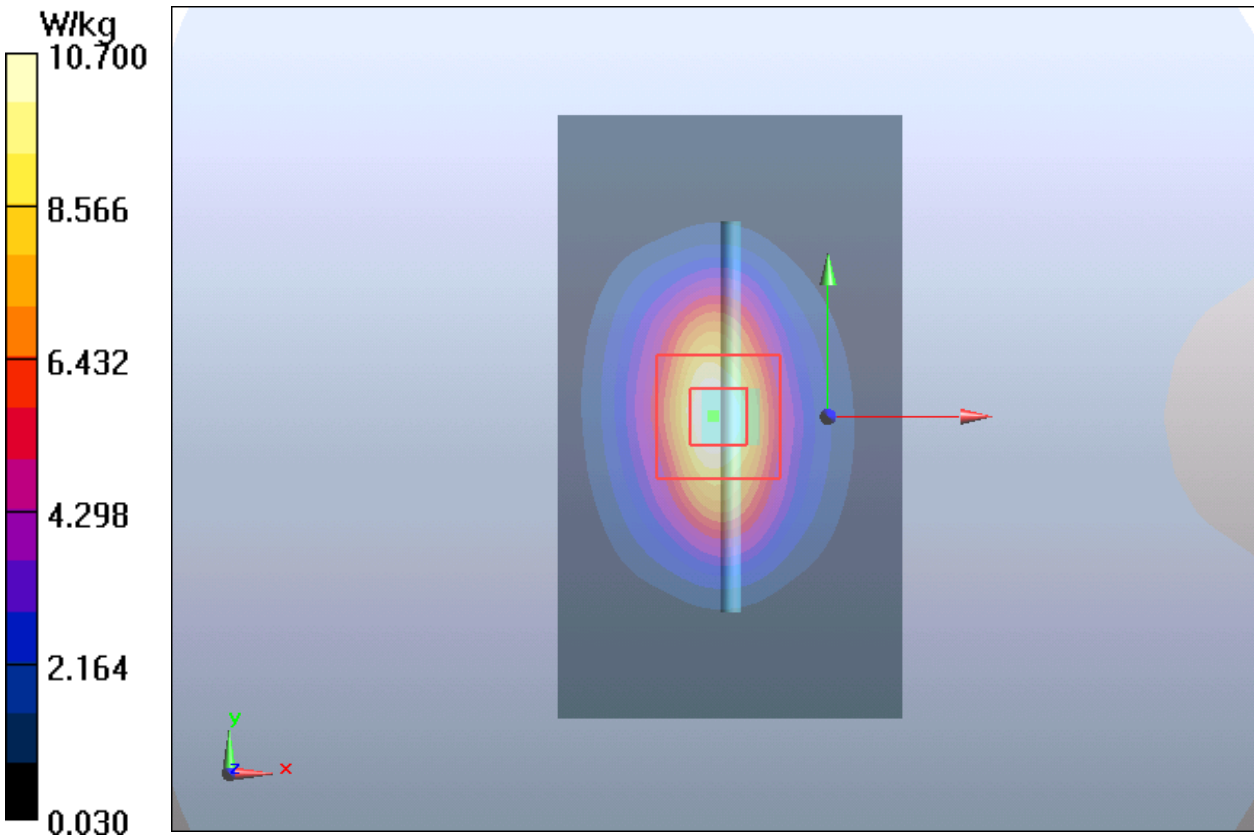
Peak SAR (extrapolated) = 17.8 W/kg

SAR(1 g) = 9.88 W/kg; SAR(10 g) = 4.9 W/kg

Smallest distance from peaks to all points 3 dB below = 10 mm

Ratio of SAR at M2 to SAR at M1 = 51.9%

Maximum value of SAR (measured) = 10.7 W/kg



Plot 11 System Performance Check at 1900 MHz TSL

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

Date: 2022/12/6

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

Medium parameters used: f = 1900 MHz; σ = 1.43 S/m; ε_r = 40.2; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.84, 7.84, 7.84); Calibrated: 2022/7/8

Electronics: DAE4 SN1291; Calibrated: 2022/3/24

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) = 10.85 W/kg

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

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

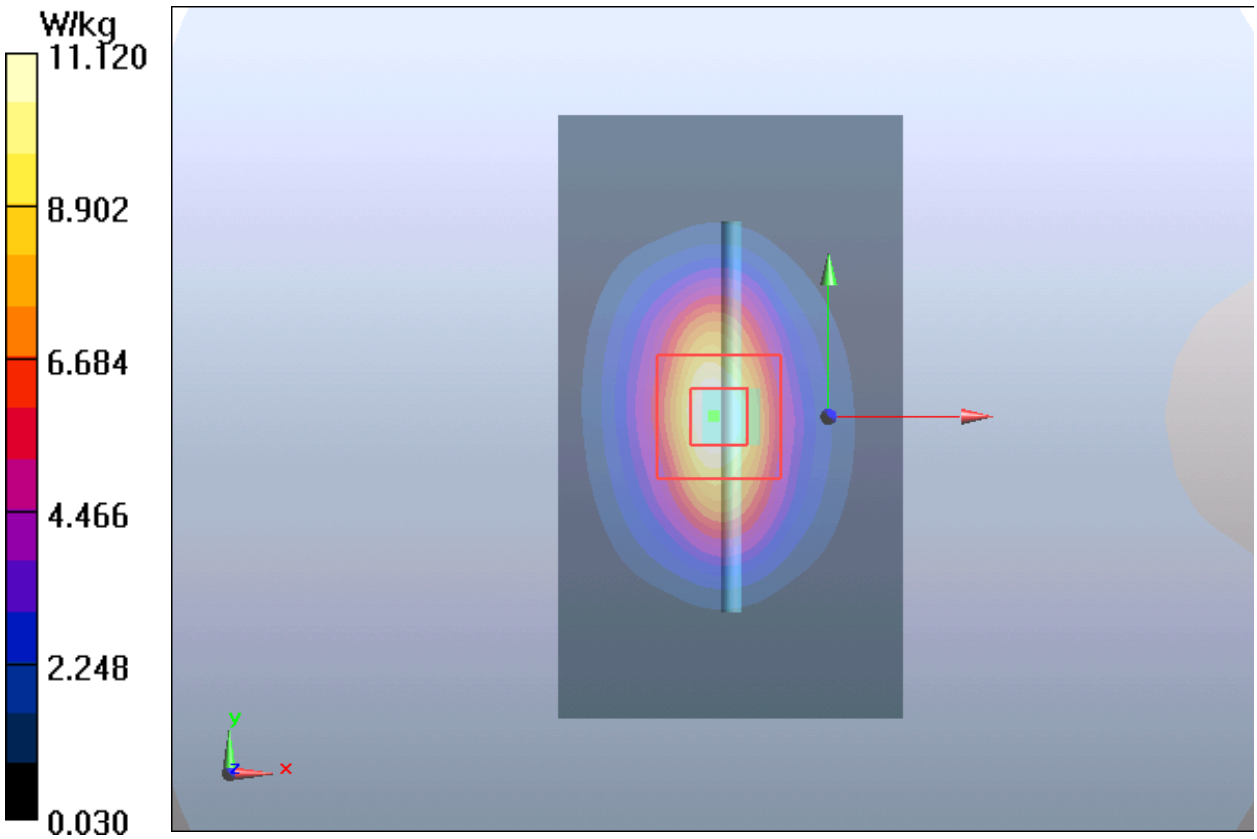
Peak SAR (extrapolated) = 19.2 W/kg

SAR(1 g) = 9.85 W/kg; SAR(10 g) = 4.93 W/kg

Smallest distance from peaks to all points 3 dB below = 9.2 mm

Ratio of SAR at M2 to SAR at M1 = 52.3%

Maximum value of SAR (measured) = 11.12 W/kg



Plot 12 System Performance Check at 1900 MHz

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

Date: 2022/12/12

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

Medium parameters used: f = 1900 MHz; σ = 1.40 S/m; ε_r = 40.0; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.84, 7.84, 7.84); Calibrated: 2022/7/8

Electronics: DAE4 SN1291; Calibrated: 2022/3/24

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) = 11.18W/kg

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

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

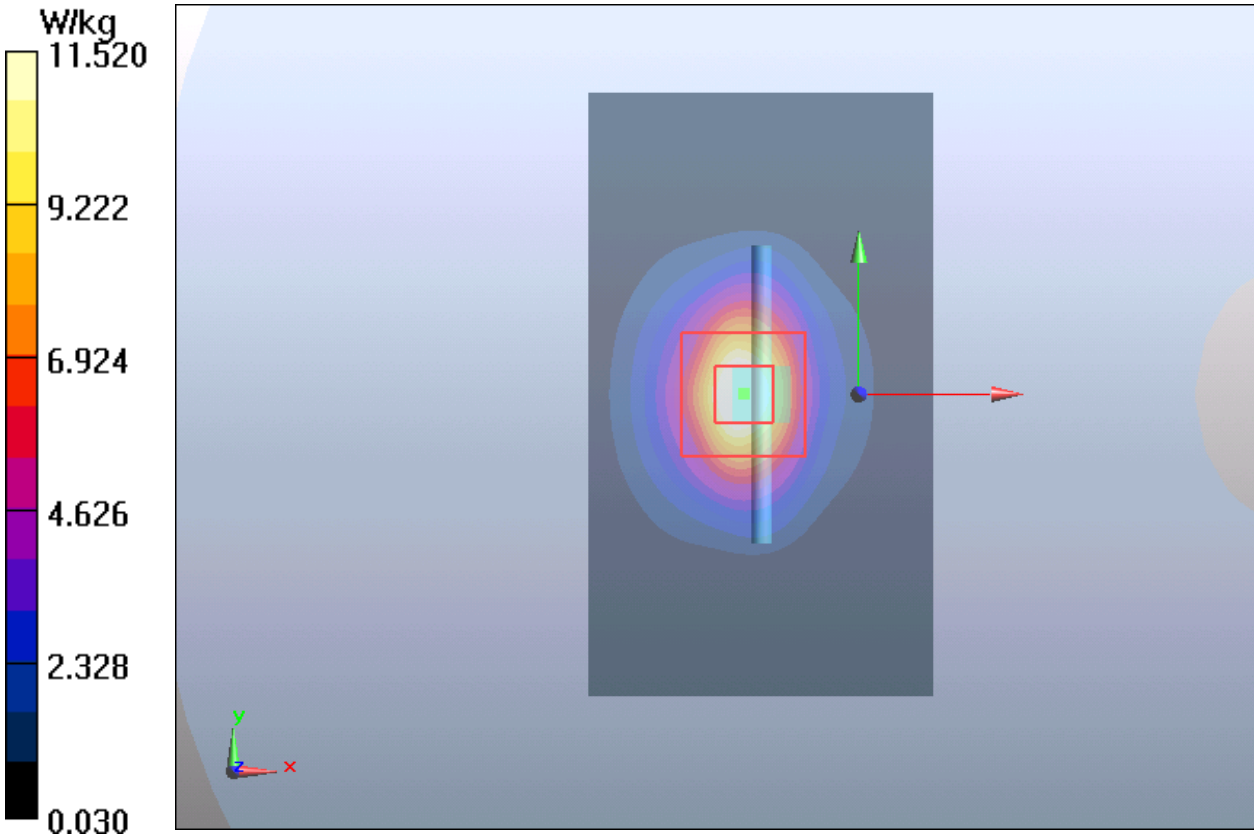
Peak SAR (extrapolated) = 20.1 W/kg

SAR(1 g) = 9.55 W/kg; SAR(10 g) = 4.99 W/kg

Smallest distance from peaks to all points 3 dB below = 10.5 mm

Ratio of SAR at M2 to SAR at M1 = 50.7%

Maximum value of SAR (measured) = 11.52 W/kg



Plot 13 System Performance Check at 1900 MHz

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

Date: 2022/12/14

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

Medium parameters used: f = 1900 MHz; σ = 1.34 S/m; ε_r = 40.5; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.84, 7.84, 7.84); Calibrated: 2022/7/8

Electronics: DAE4 SN1291; Calibrated: 2022/3/24

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 (interpolated) = 11.6 W/kg

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

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

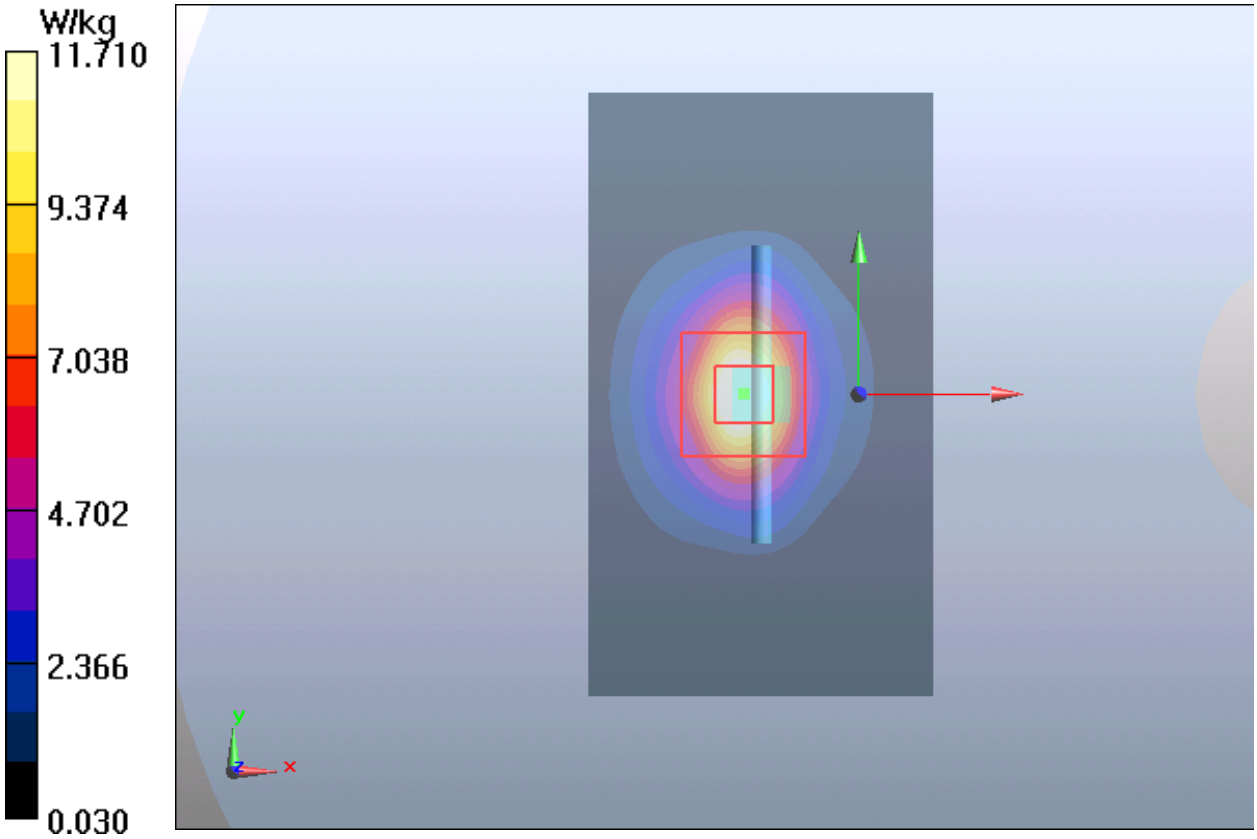
Peak SAR (extrapolated) = 20.0 W/kg

SAR(1 g) = 9.60 W/kg; SAR(10 g) = 4.98 W/kg

Smallest distance from peaks to all points 3 dB below = 9.6 mm

Ratio of SAR at M2 to SAR at M1 = 51.2%

Maximum value of SAR (measured) = 11.71 W/kg



Plot 14 System Performance Check at 1900 MHz TSL

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

Date: 2022/12/15

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

Medium parameters used: f = 1900 MHz; σ = 1.43 S/m; ε_r = 40.2; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.84, 7.84, 7.84); Calibrated: 2022/7/8

Electronics: DAE4 SN1291; Calibrated: 2022/3/24

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) = 10.94 W/kg

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

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

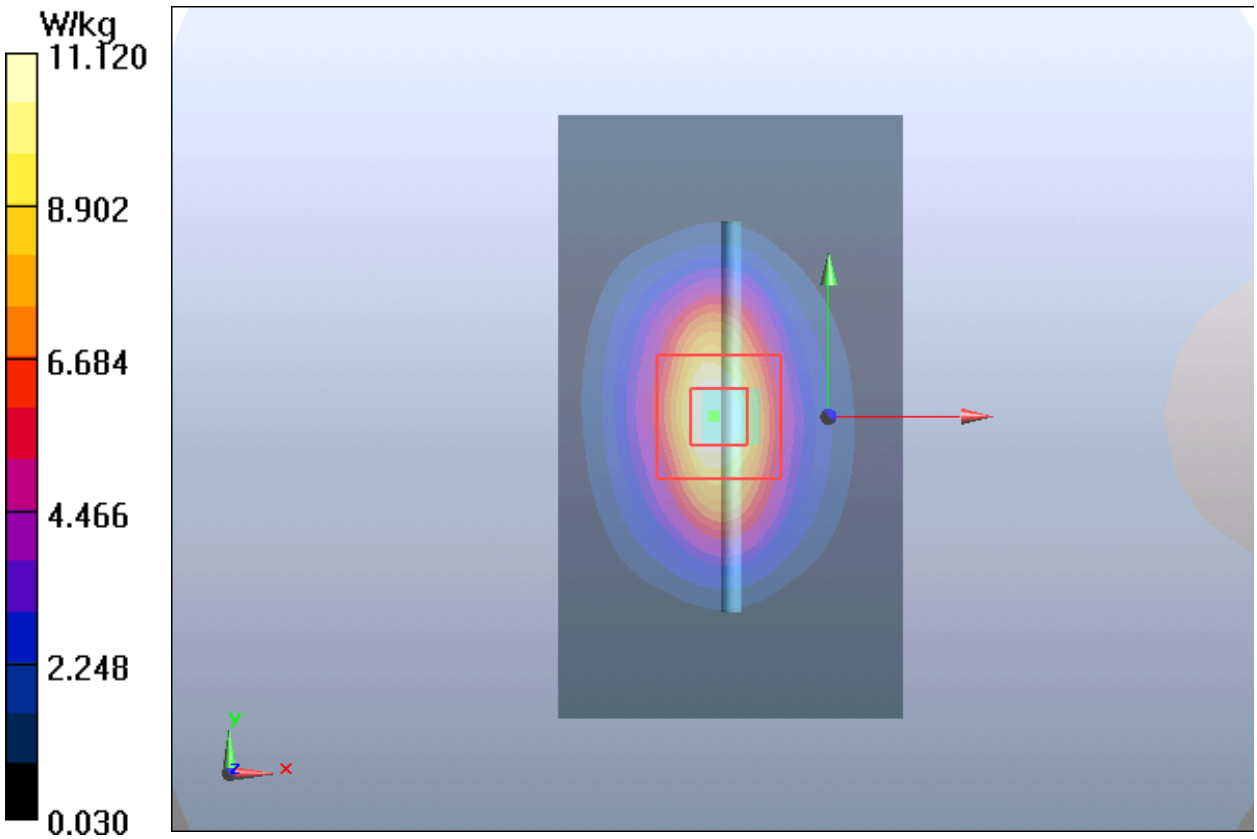
Peak SAR (extrapolated) = 17.8 W/kg

SAR(1 g) = 9.85 W/kg; SAR(10 g) = 4.93 W/kg

Smallest distance from peaks to all points 3 dB below = 10.2 mm

Ratio of SAR at M2 to SAR at M1 = 51.3%

Maximum value of SAR (measured) = 11.12 W/kg



Plot 15 System Performance Check at 2300 MHz TSL

DUT: Dipole 2300 MHz; Type: D2300V2; Serial: D2300V2

Date: 2022/12/16

Communication System: CW Frequency: 2300 MHz;Duty Cycle: 1:1

Medium parameters used: f = 2300 MHz; σ = 1.65 S/m; ε_r = 40.0; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.76, 7.76, 7.76); Calibrated: 2022/7/8

Electronics: DAE4 SN1291; Calibrated: 2022/3/24

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) = 13.86 W/kg

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

Reference Value = 85.188 V/m; Power Drift = 0.09 dB

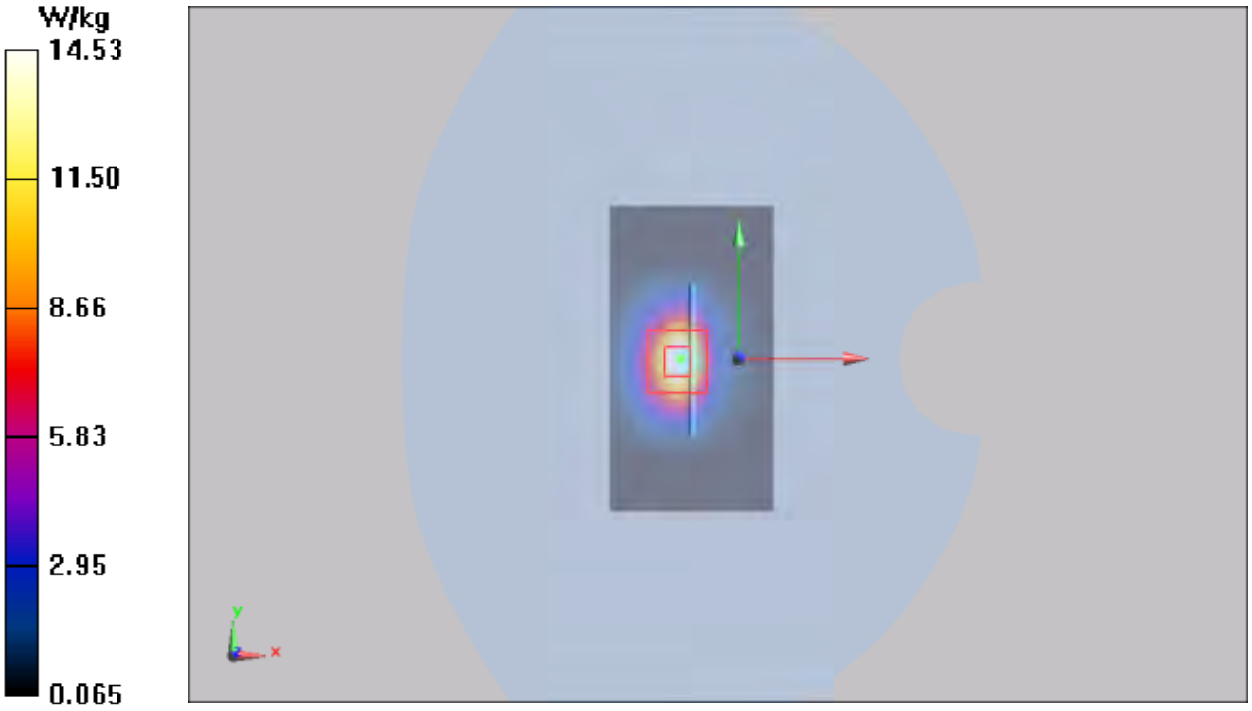
Peak SAR (extrapolated) = 26.4 W/kg

SAR(1 g) = 12.36 W/kg; SAR(10 g) = 5.90 W/kg

Smallest distance from peaks to all points 3 dB below = 9 mm

Ratio of SAR at M2 to SAR at M1 = 51.8%

Maximum value of SAR (measured) = 14.53 W/kg



Plot 16 System Performance Check at 2450 MHz TSL

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

Date: 2022/12/21

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

Medium parameters used: f = 2450 MHz; σ = 1.81 S/m; ε_r = 38.6; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.46, 7.46, 7.46); Calibrated: 2022/7/8

Electronics: DAE4 SN1291; Calibrated: 2022/3/24

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) = 15.1 W/kg

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

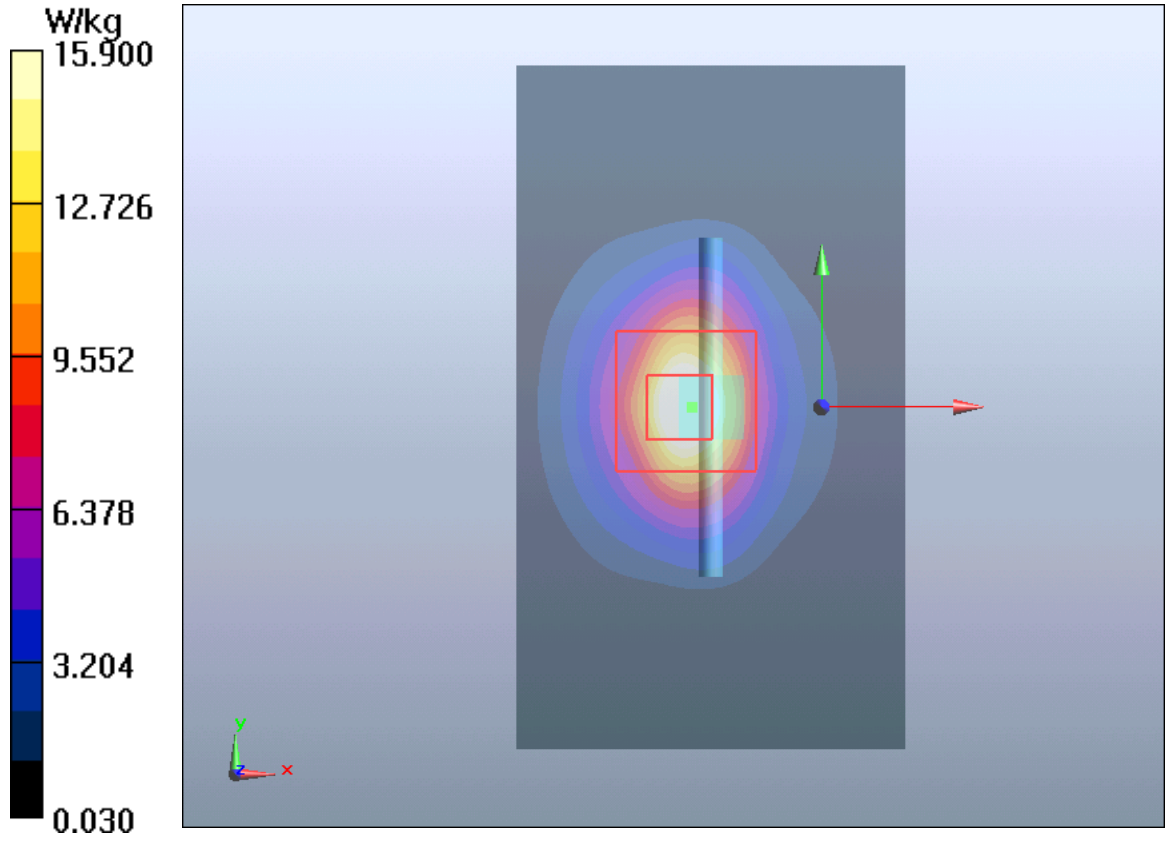
Peak SAR (extrapolated) = 30 W/kg

SAR(1 g) = 13.7 W/kg; SAR(10 g) = 6.22 W/kg

Smallest distance from peaks to all points 3 dB below = 8.9 mm

Ratio of SAR at M2 to SAR at M1 = 47%

Maximum value of SAR (measured) = 15.9 W/kg



Plot 17 System Performance Check at 2600 MHz TSL

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

Date: 2022/12/7

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

Medium parameters used: f = 2600 MHz; σ = 2.01 S/m; ε_r = 38.2; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.27, 7.27, 7.27); Calibrated: 2022/7/8

Electronics: DAE4 SN1291; Calibrated: 2022/3/24

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) = 15.43 W/kg

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

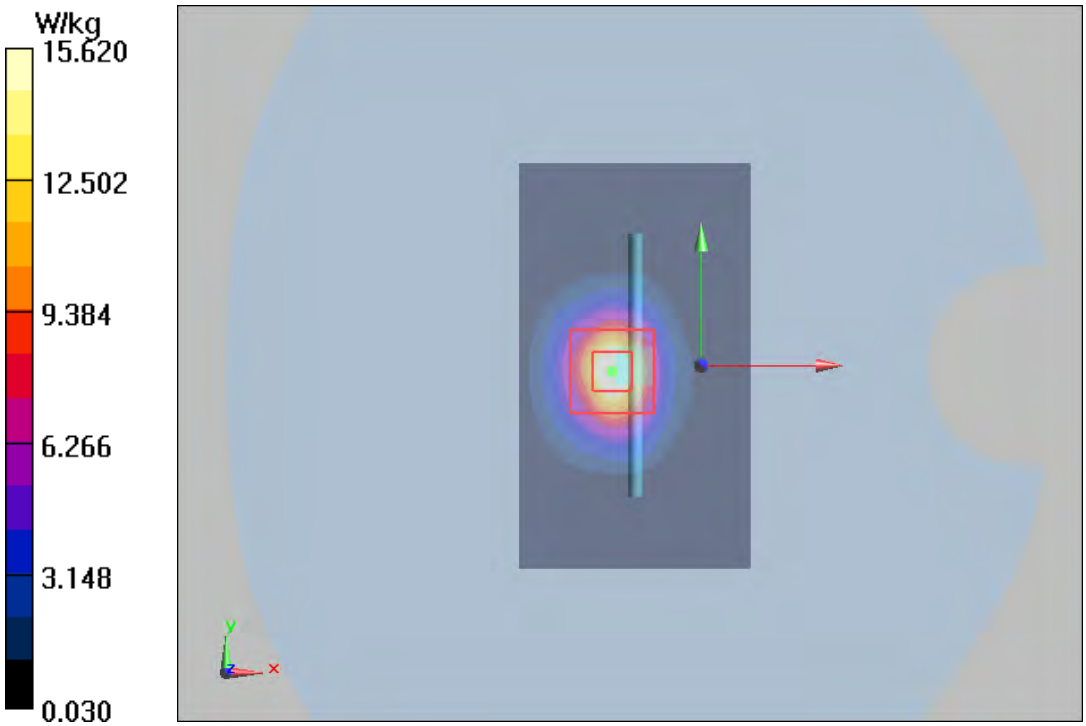
Peak SAR (extrapolated) = 28.85 W/kg

SAR(1 g) = 13.9 W/kg; SAR(10 g) = 6.07 W/kg

Smallest distance from peaks to all points 3 dB below = 9 mm

Ratio of SAR at M2 to SAR at M1 = 44%

Maximum value of SAR (measured) = 15.62 W/kg



Plot 18 System Performance Check at 2600 MHz TSL

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

Date: 2022/12/11

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

Medium parameters used: f = 2600 MHz; σ =1.94S/m; ε_r = 38.4; 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 - SN3677; ConvF(7.27, 7.27, 7.27); Calibrated: 2022/7/8

Electronics: DAE4 SN1291; Calibrated: 2022/3/24

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) = 14.92 W/kg

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 =0.016 dB

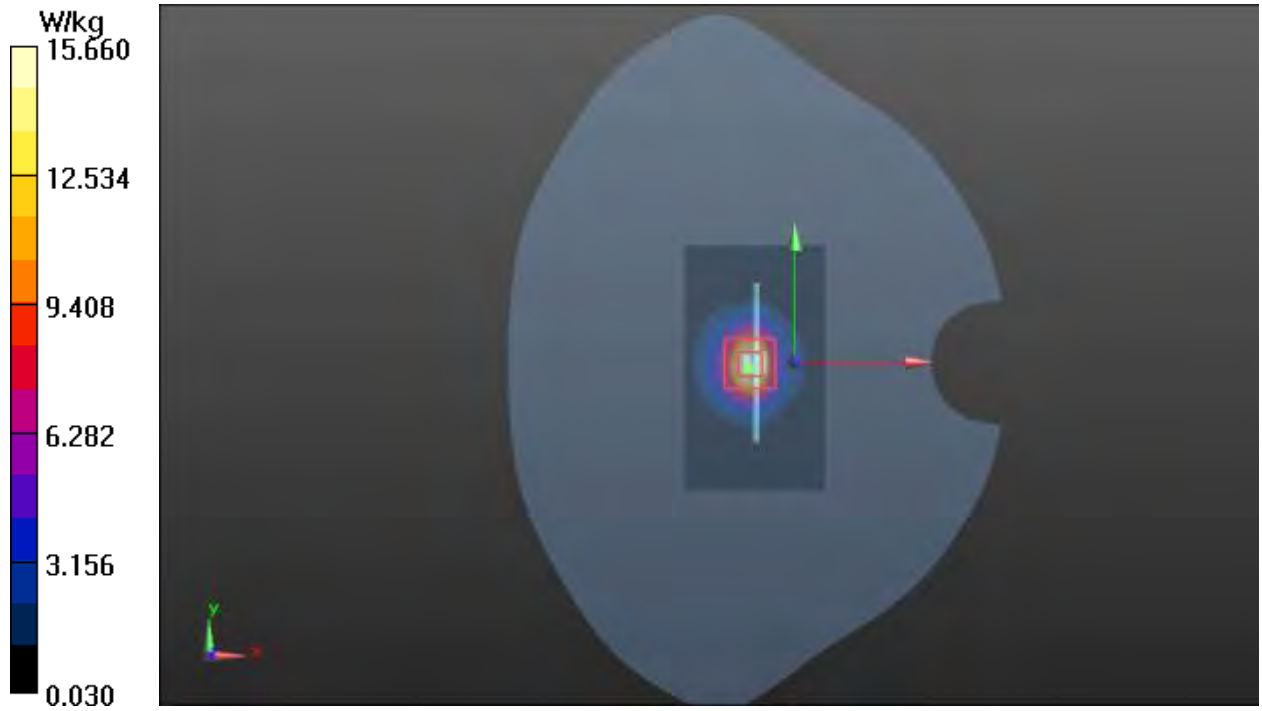
Peak SAR (extrapolated) = 31.20 W/kg

SAR(1 g) = 13.88 W/kg; SAR(10 g) = 6.09 W/kg

Smallest distance from peaks to all points 3 dB below = 8.6 mm

Ratio of SAR at M2 to SAR at M1 = 45.7%

Maximum value of SAR (measured) = 15.66 W/kg



Plot 19 System Performance Check at 2600 MHz TSL

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

Date: 2022/12/13

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

Medium parameters used: f = 2600 MHz; σ = 1.99 S/m; ε_r = 38.3; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.27, 7.27, 7.27); Calibrated: 2022/7/8

Electronics: DAE4 SN1291; Calibrated: 2022/3/24

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) = 15.11 W/kg

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

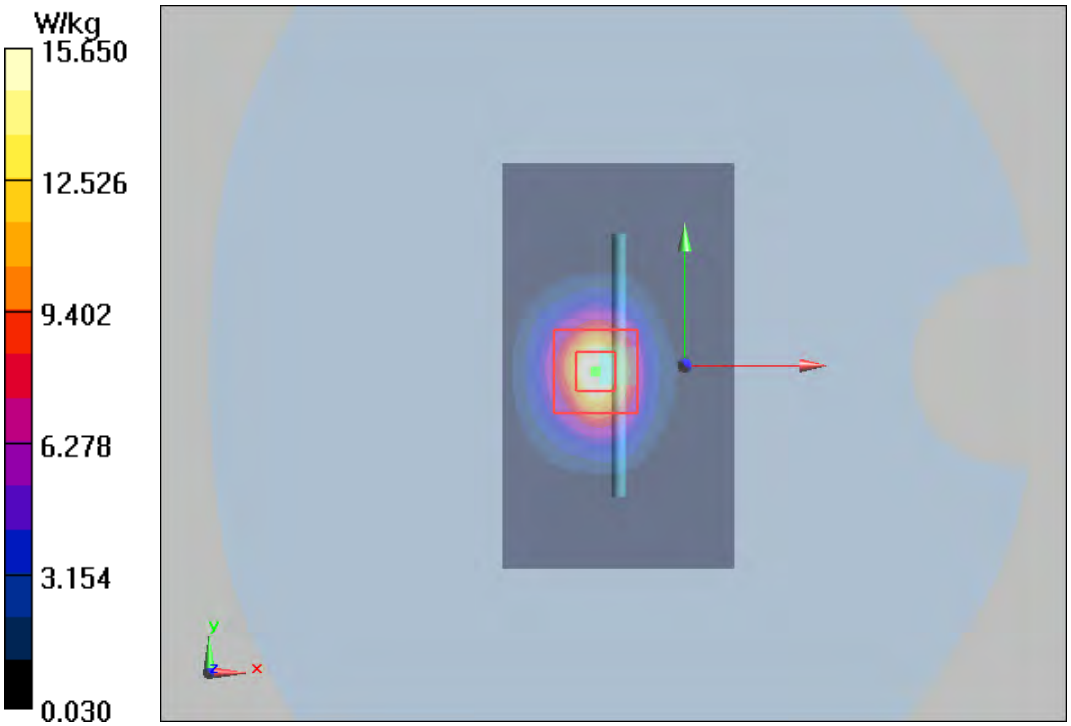
Peak SAR (extrapolated) = 31.85 W/kg

SAR(1 g) = 13.94 W/kg; SAR(10 g) = 6.11 W/kg

Smallest distance from peaks to all points 3 dB below = 8.2 mm

Ratio of SAR at M2 to SAR at M1 = 43.8%

Maximum value of SAR (measured) = 15.65 W/kg



Plot 20 System Performance Check at 2600 MHz TSL

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

Date: 2022/12/16

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

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.27, 7.27, 7.27); Calibrated: 2022/7/8

Electronics: DAE4 SN1291; Calibrated: 2022/3/24

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 W/kg

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

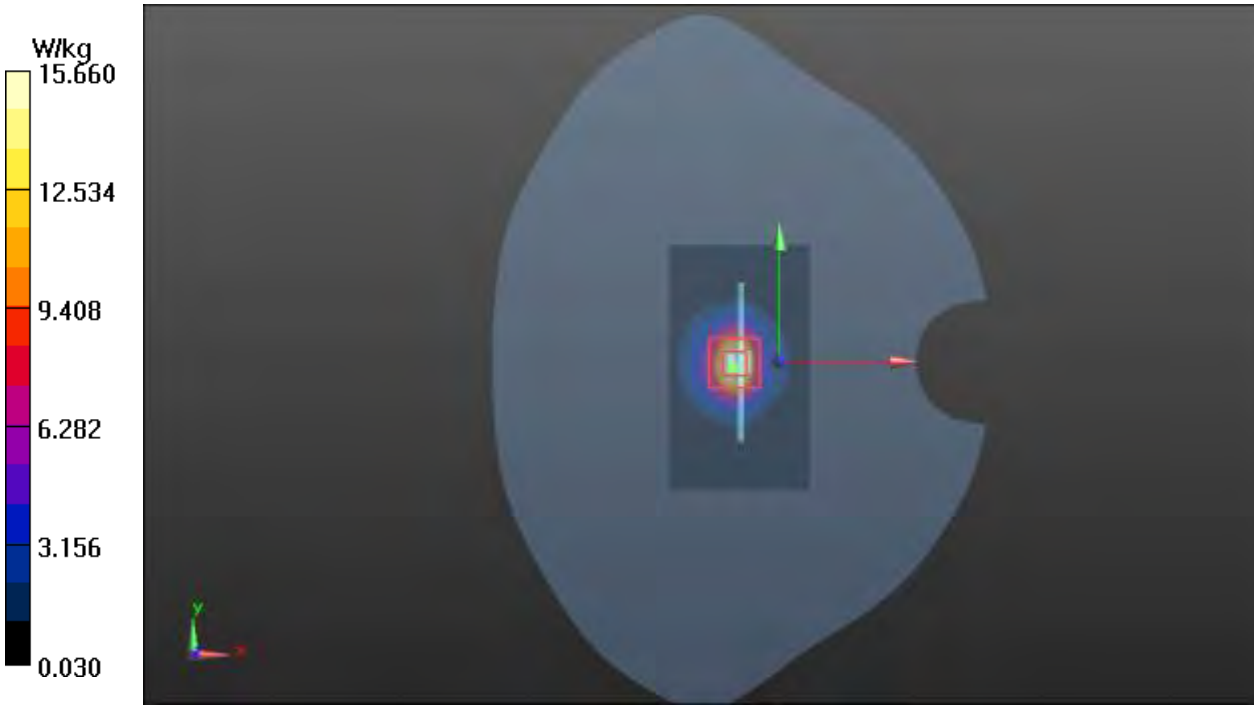
Peak SAR (extrapolated) = 31.858 W/kg

SAR(1 g) = 13.9 W/kg; SAR(10 g) = 6.09 W/kg

Smallest distance from peaks to all points 3 dB below = 9 mm

Ratio of SAR at M2 to SAR at M1 = 44%

Maximum value of SAR (measured) = 15.66 W/kg



Plot 21 System Performance Check at 3500 MHz TSL

DUT: Dipole 3500 MHz; Type: D3500V2; Serial: D3500V2

Date: 2022/12/19

Communication System: UID 0, CW (0); Frequency: 3500 MHz;Duty Cycle: 1:1

Medium parameters used: f = 3500 MHz; σ = 2.83 S/m; ε_r = 37.1; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(6.90, 6.90, 6.90); Calibrated: 2022/7/8

Electronics: DAE4 SN1291; Calibrated: 2022/3/24

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) = 11.6 W/kg

d=10mm, Pin=100mW/Zoom Scan (8x8x8)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 46.00 V/m; Power Drift = 0.10 dB

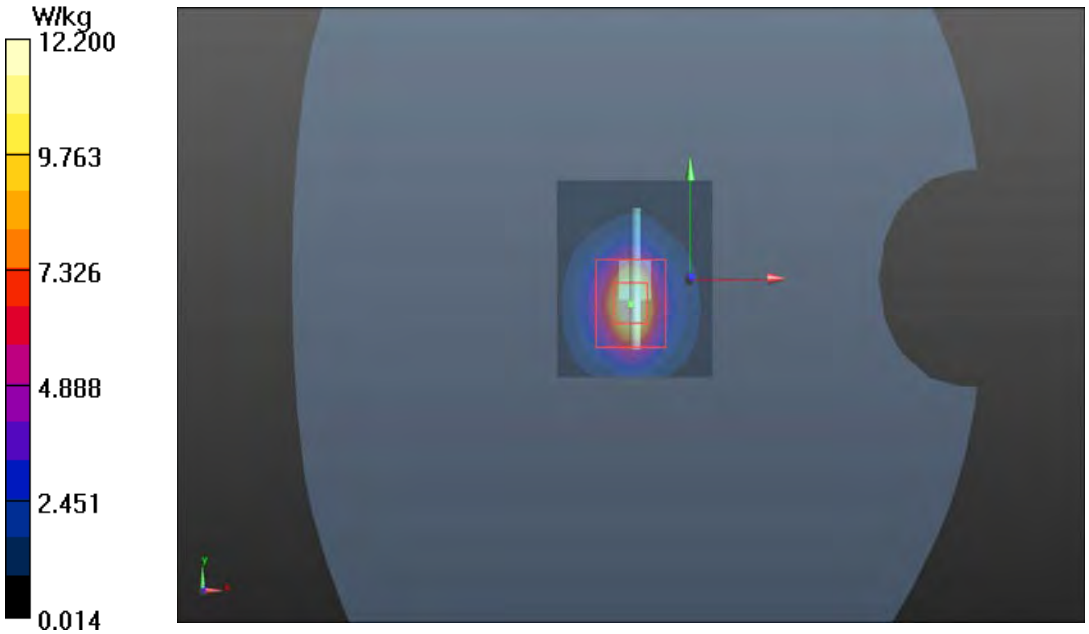
Peak SAR (extrapolated) = 18.2 W/kg

SAR(1 g) = 6.57W/kg; SAR(10 g) = 2.52 W/kg

Smallest distance from peaks to all points 3 dB below = 9 mm

Ratio of SAR at M2 to SAR at M1= 54.6%

Maximum value of SAR (measured) = 12.2 W/kg



Plot 22 System Performance Check at 3700 MHz TSL

DUT: Dipole 3700 MHz; Type: D3700V2; Serial: D3700V2

Date: 2022/12/21

Communication System: UID 0, CW (0); Frequency: 3700 MHz;Duty Cycle: 1:1

Medium parameters used: f = 3700 MHz; σ = 3.01 S/m; εr = 38.0; ρ = 1000 kg/m3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(6.64, 6.64, 6.64); Calibrated: 2022/7/8

Electronics: DAE4 SN1291; Calibrated: 2022/3/24

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) = 11.72 W/kg

d=10mm, Pin=100mW/Zoom Scan (8x8x8)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 46.00 V/m; Power Drift = 0.10 dB

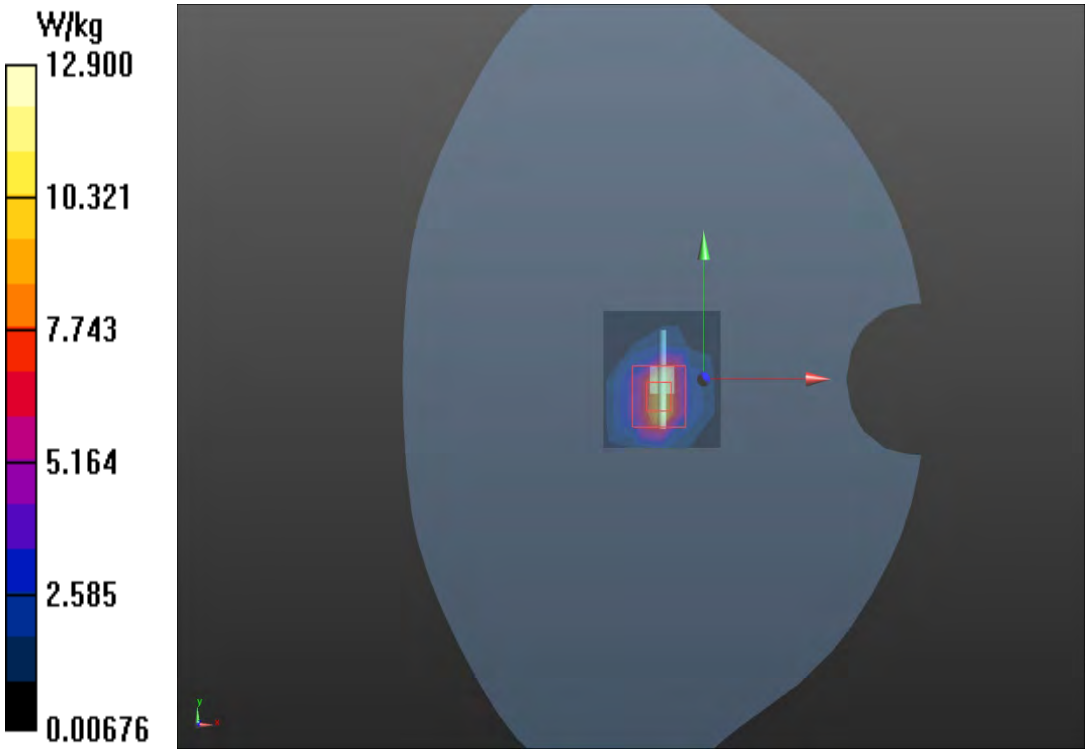
Peak SAR (extrapolated) = 18.2 W/kg

SAR(1 g) = 6.83 W/kg; SAR(10 g) = 2.54 W/kg

Smallest distance from peaks to all points 3 dB below = 9 mm

Ratio of SAR at M2 to SAR at M1= 58.5%

Maximum value of SAR (measured) = 12.9 W/kg



Plot 23 System Performance Check at 3900 MHz TSL

DUT: Dipole 3900 MHz; Type: D3900V2; Serial: D3900V2

Date: 2022/12/21

Communication System: UID 0, CW (0); Frequency: 3900 MHz;Duty Cycle: 1:1

Medium parameters used: f = 3900 MHz; σ = 3.42 S/m; ε_r = 37.9; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(6.58, 6.58, 6.58); Calibrated: 2022/7/8

Electronics: DAE4 SN1291; Calibrated: 2022/3/24

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) = 10.64 W/kg

d=10mm, Pin=100mW /Zoom Scan (8x8x8)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 47.54 V/m; Power Drift = 0.17 dB

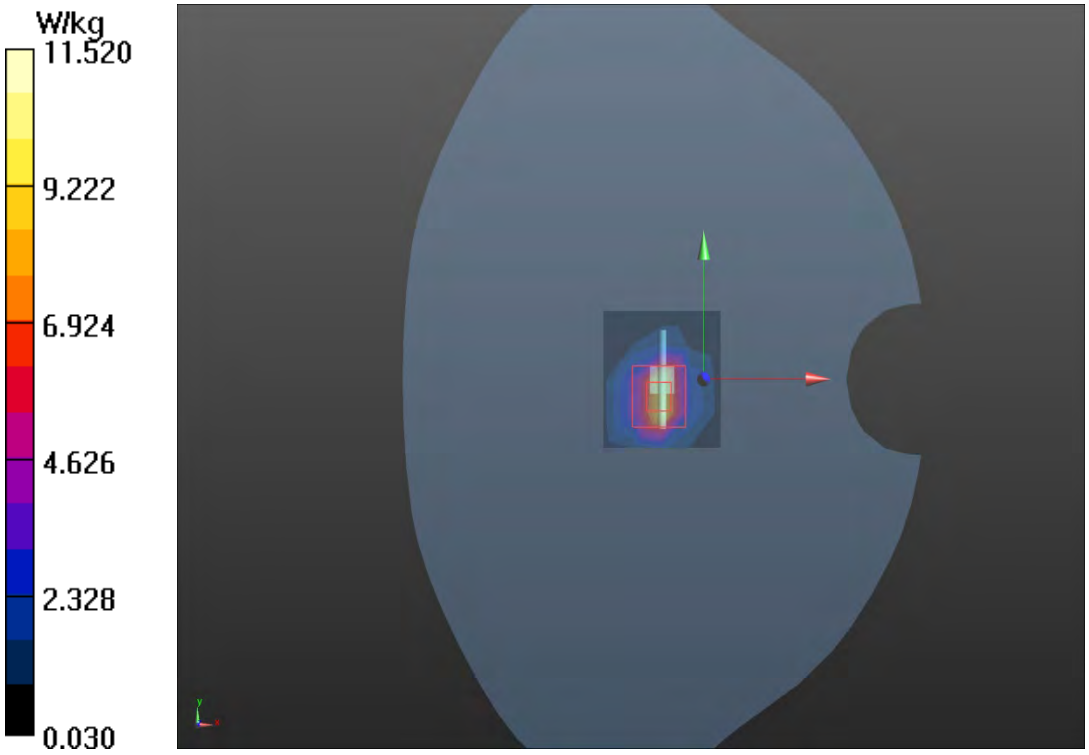
Peak SAR (extrapolated) = 18.22 W/kg

SAR(1 g) = 6.83 W/kg; SAR(10 g) = 2.47 W/kg

Smallest distance from peaks to all points 3 dB below = 9 mm

Ratio of SAR at M2 to SAR at M1= 57.1%

Maximum value of SAR (measured) = 11.52 W/kg



Plot 24 System Performance Check at 5250 MHz TSL

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

Date: 2022/12/8

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

Medium parameters used: f = 5250 MHz; σ = 4.80 S/m; ε_r = 35.5; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(5.48, 5.48, 5.48); Calibrated: 2022/7/8

Electronics: DAE4 SN1291; Calibrated: 2022/3/24

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 W/kg

d=10mm, Pin=100mW/Zoom Scan (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

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

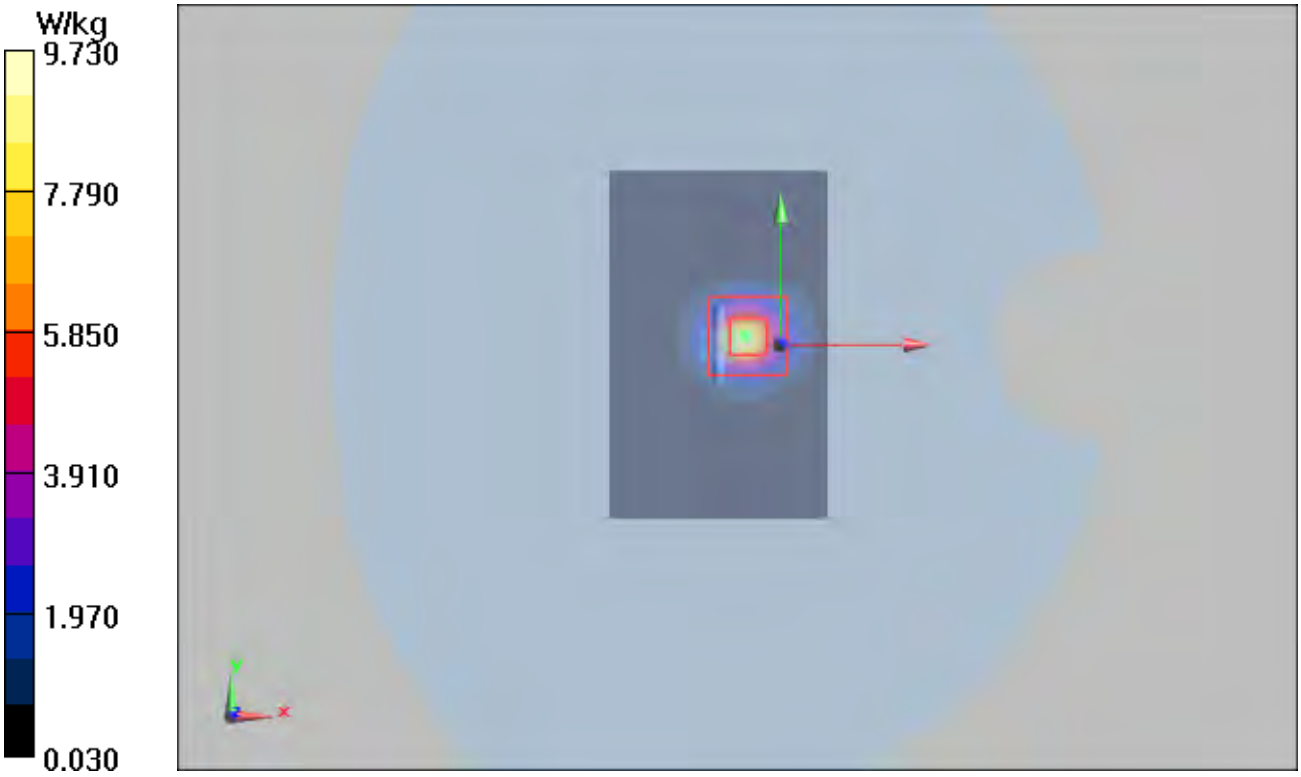
Peak SAR (extrapolated) = 52.2 W/kg

SAR(1 g) = 7.87 W/kg; SAR(10 g) = 2.25 W/kg

Smallest distance from peaks to all points 3 dB below = 7.2 mm

Ratio of SAR at M2 to SAR at M1 = 63%

Maximum value of SAR (measured) = 9.73 W/kg



Plot 25 System Performance Check at 5600 MHz TSL

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

Date: 2022/12/19

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

Medium parameters used: f = 5600 MHz; σ = 5.21 S/m; ε_r = 34.2; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(4.97, 4.97, 4.97); Calibrated: 2022/7/8

Electronics: DAE4 SN1291; Calibrated: 2022/3/24

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 W/kg

d=10mm, Pin=100mW/Zoom Scan (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

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

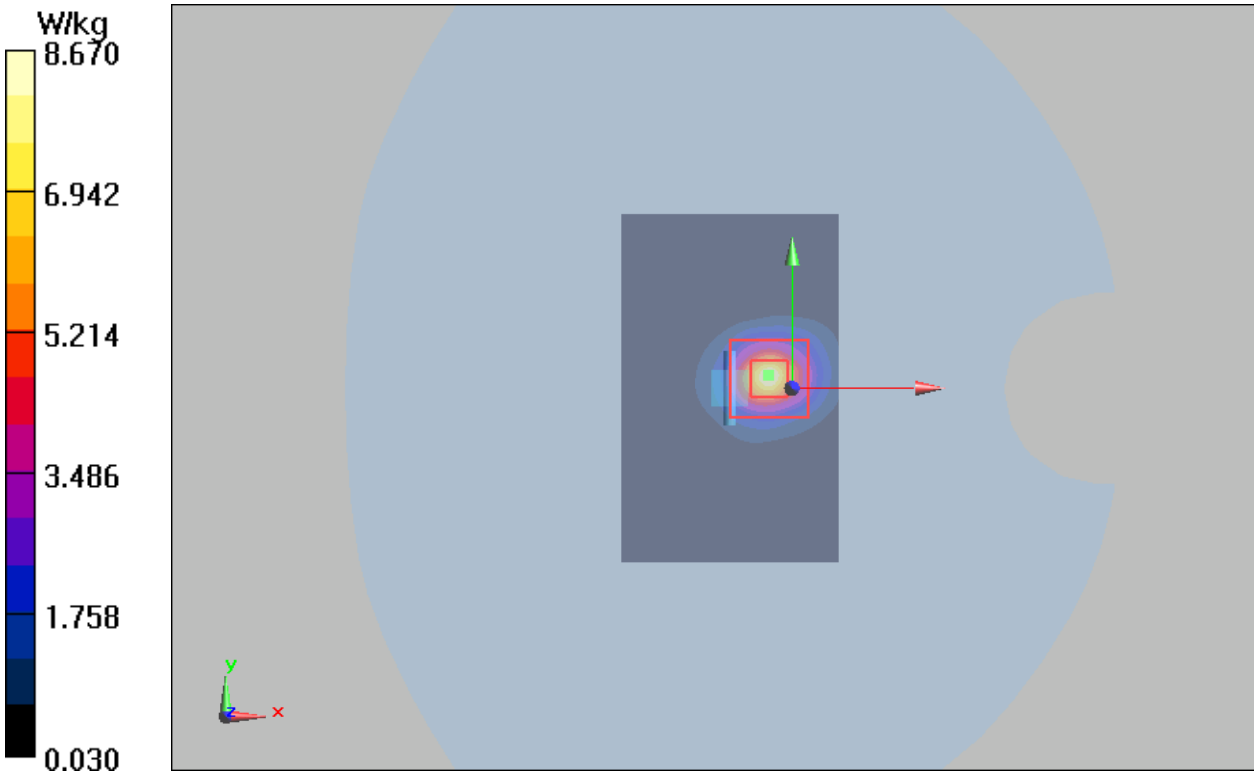
Peak SAR (extrapolated) = 22.9 W/kg

SAR(1 g) = 7.67 W/kg; SAR(10 g) = 2.27 W/kg

Smallest distance from peaks to all points 3 dB below = 7.2 mm

Ratio of SAR at M2 to SAR at M1 = 61.4%

Maximum value of SAR (measured) = 8.67 W/kg



Plot 26 System Performance Check at 5750 MHz TSL

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

Date: 2022/12/9

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

Medium parameters used: f = 5750 MHz; σ = 5.21 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 - SN3677; ConvF(5.00, 5.00, 5.00); Calibrated: 2022/7/8

Electronics: DAE4 SN1291; Calibrated: 2022/3/24

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 W/kg

d=10mm, Pin=100mW/Zoom Scan (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

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

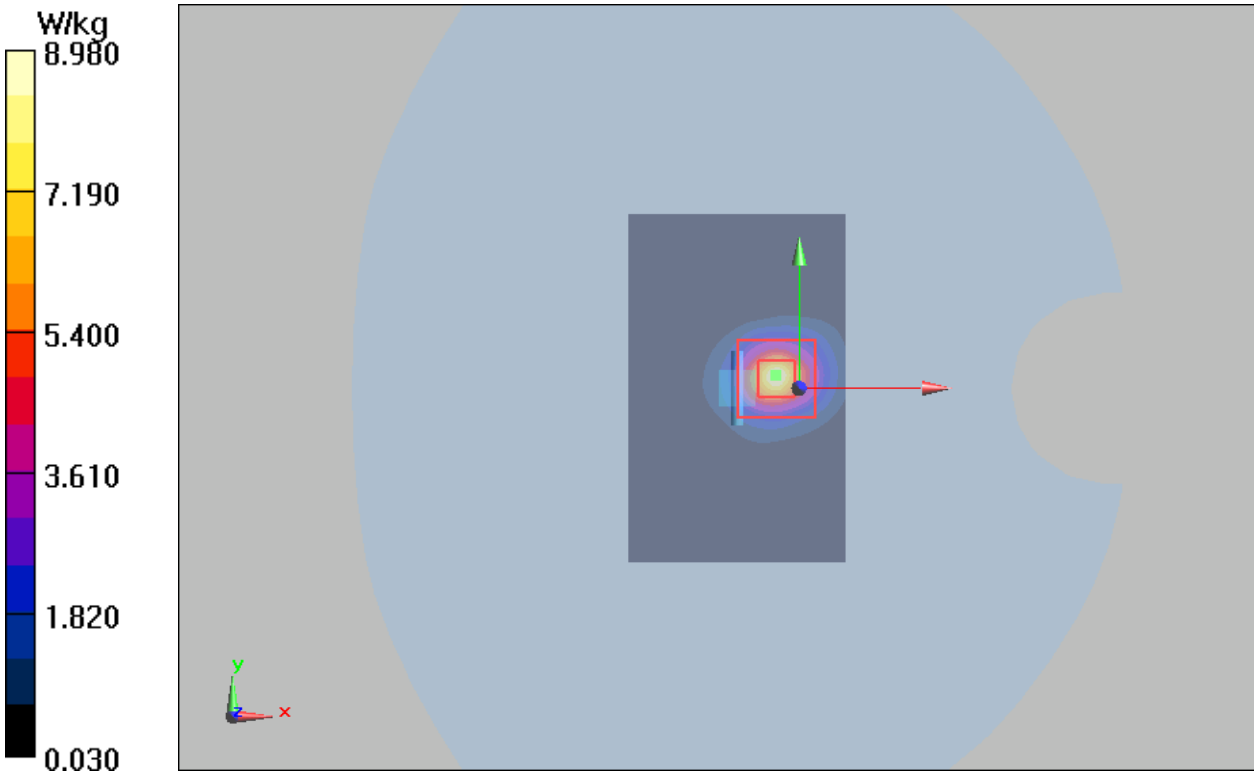
Peak SAR (extrapolated) = 23.4 W/kg

SAR(1 g) = 7.66 W/kg; SAR(10 g) = 2.27 W/kg

Smallest distance from peaks to all points 3 dB below = 7.2 mm

Ratio of SAR at M2 to SAR at M1 = 59.9%

Maximum value of SAR (measured) = 8.98 W/kg



(Variant)

Plot 27 System Performance Check at 835 MHz TSL

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

Date: 2023/1/11

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

Medium parameters used: f = 835 MHz; σ = 0.88 S/m; ε_r = 41.4; 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 - SN3677; ConvF(9.34, 9.34, 9.34); Calibrated: 2022/7/8

Electronics: DAE4 SN1291; Calibrated: 2022/3/24

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 W/kg

d=15mm, Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

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

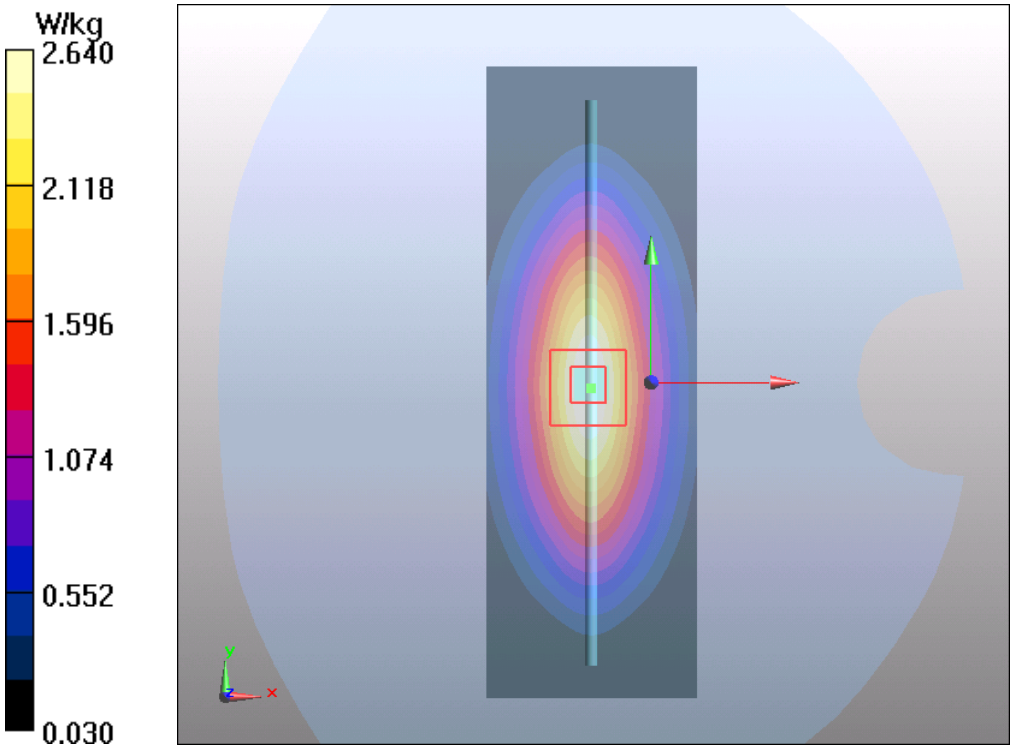
Peak SAR (extrapolated) = 3.67 W/kg

SAR(1 g) = 2.44 W/kg; SAR(10 g) = 1.6 W/kg

Smallest distance from peaks to all points 3 dB below = 16.6 mm

Ratio of SAR at M2 to SAR at M1 = 68.1%

Maximum value of SAR (measured) = 2.64 W/kg



Plot 28 System Performance Check at 1750 MHz TSL

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

Date: 2023/1/11

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

Medium parameters used: f = 1750 MHz; σ = 1.34 S/m; ε_r = 40.1; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(8.25, 8.25, 8.25); Calibrated: 2022/7/8

Electronics: DAE4 SN1291; Calibrated: 2022/3/24

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 W/kg

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

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

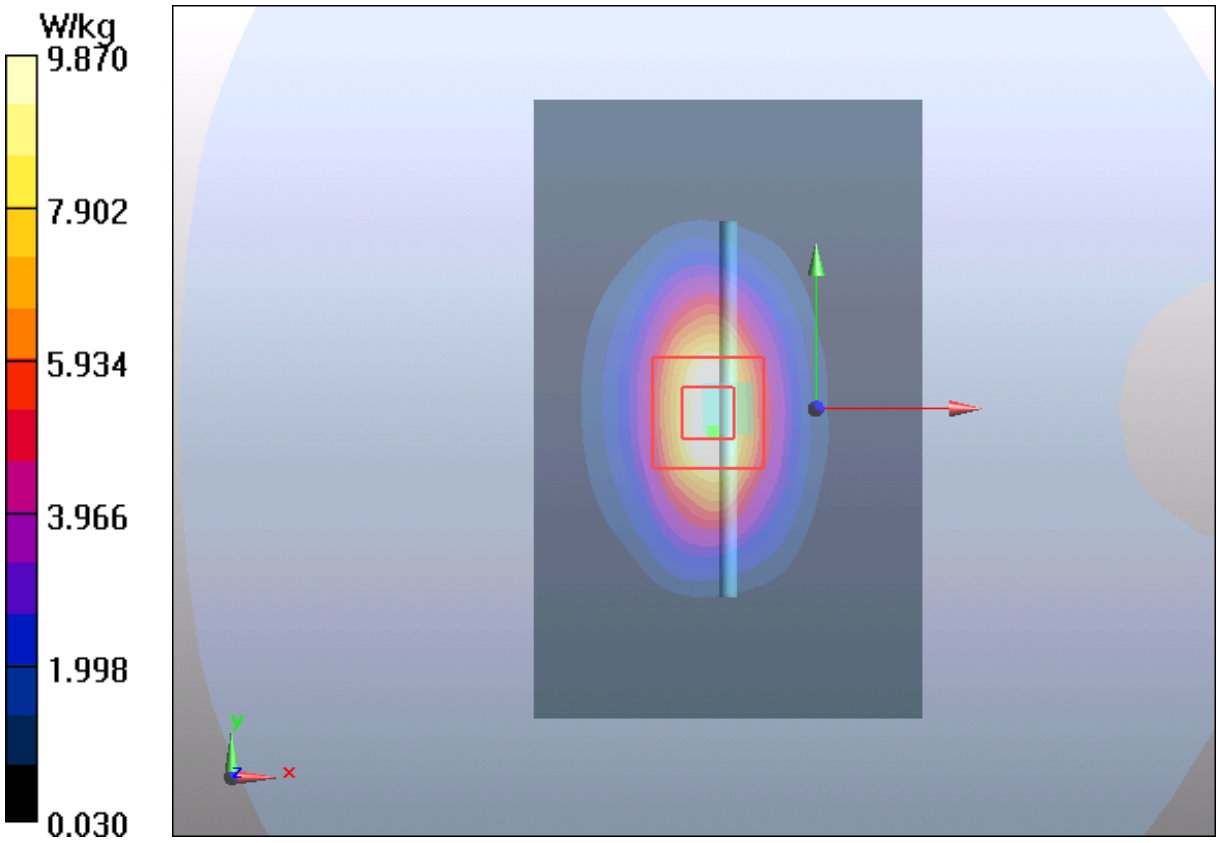
Peak SAR (extrapolated) = 15.51 W/kg

SAR(1 g) = 9.11 W/kg; SAR(10 g) = 4.77 W/kg

Smallest distance from peaks to all points 3 dB below = 10mm

Ratio of SAR at M2 to SAR at M1 = 53.5%

Maximum value of SAR (measured) = 9.87 W/kg



Plot 29 System Performance Check at 2450 MHz TSL

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

Date: 2023/1/9

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

Medium parameters used: f = 2450 MHz; σ = 1.82 S/m; ε_r = 38.7; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.46, 7.46, 7.46); Calibrated: 2022/7/8

Electronics: DAE4 SN1291; Calibrated: 2022/3/24

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

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

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

Maximum value of SAR (interpolated) = 21.11 W/kg

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

Reference Value = 67.0 V/m; Power Drift = 0.06 dB

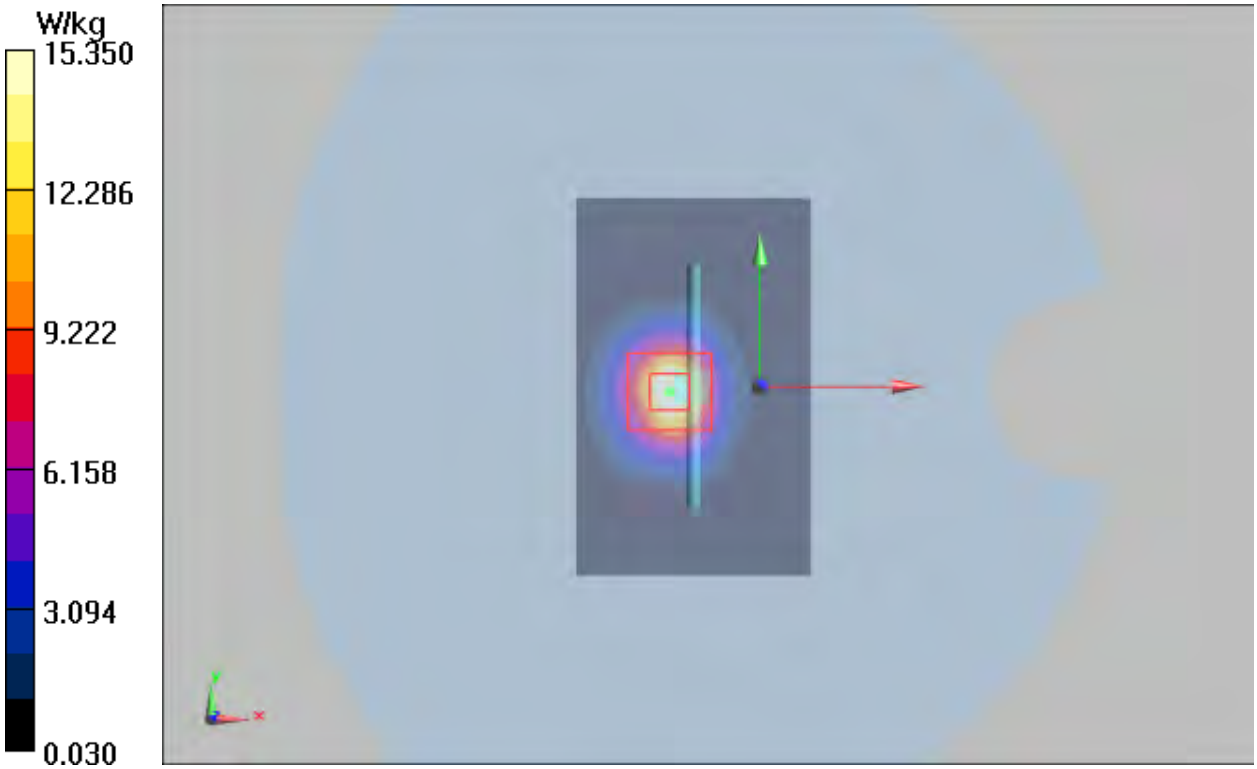
Peak SAR (extrapolated) = 28.0 W/kg

SAR(1 g) = 13.52 W/kg; SAR(10 g) = 6.17 W/kg

Smallest distance from peaks to all points 3 dB below = 8.9 mm

Ratio of SAR at M2 to SAR at M1 = 47%

Maximum value of SAR (measured) = 15.35 W/kg



Plot 30 System Performance Check at 2600 MHz TSL

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

Date: 2023/1/9

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

Medium parameters used: f = 2600 MHz; σ =1.94S/m; ε_r = 38.4; 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 - SN3677; ConvF(7.27, 7.27, 7.27); Calibrated: 2022/7/8

Electronics: DAE4 SN1291; Calibrated: 2022/3/24

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 W/kg

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

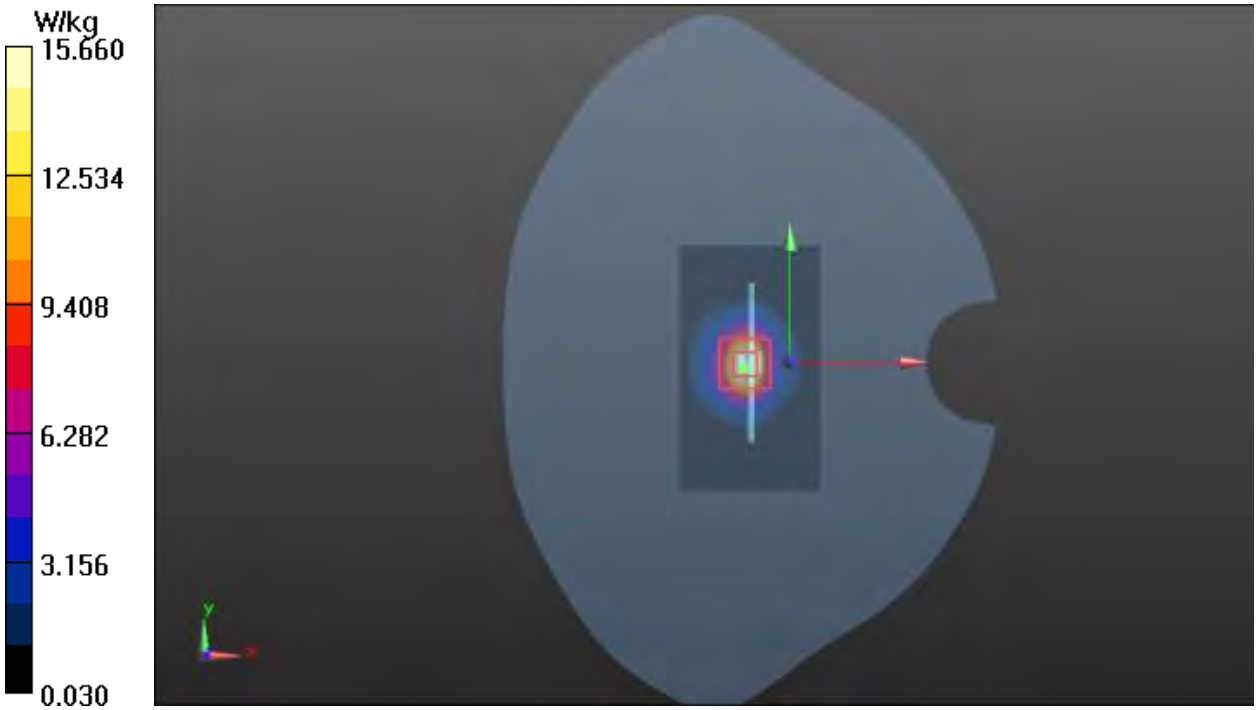
Peak SAR (extrapolated) = 31.858 W/kg

SAR(1 g) = 13.88 W/kg; SAR(10 g) = 6.09 W/kg

Smallest distance from peaks to all points 3 dB below = 9 mm

Ratio of SAR at M2 to SAR at M1 = 44%

Maximum value of SAR (measured) = 15.66 W/kg



Plot 31 System Performance Check at 3700 MHz TSL

DUT: Dipole 3700 MHz; Type: D3700V2; Serial: D3700V2

Date: 2023/1/10

Communication System: UID 0, CW (0); Frequency: 3700 MHz;Duty Cycle: 1:1

Medium parameters used: f = 3700 MHz; σ = 3.03 S/m; ε_r = 38.1; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(6.64, 6.64, 6.64); Calibrated: 2022/7/8

Electronics: DAE4 SN1291; Calibrated: 2022/3/24

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) = 13.5 W/kg

d=10mm, Pin=100mW /Zoom Scan (8x8x8)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 46.00 V/m; Power Drift = 0.10 dB

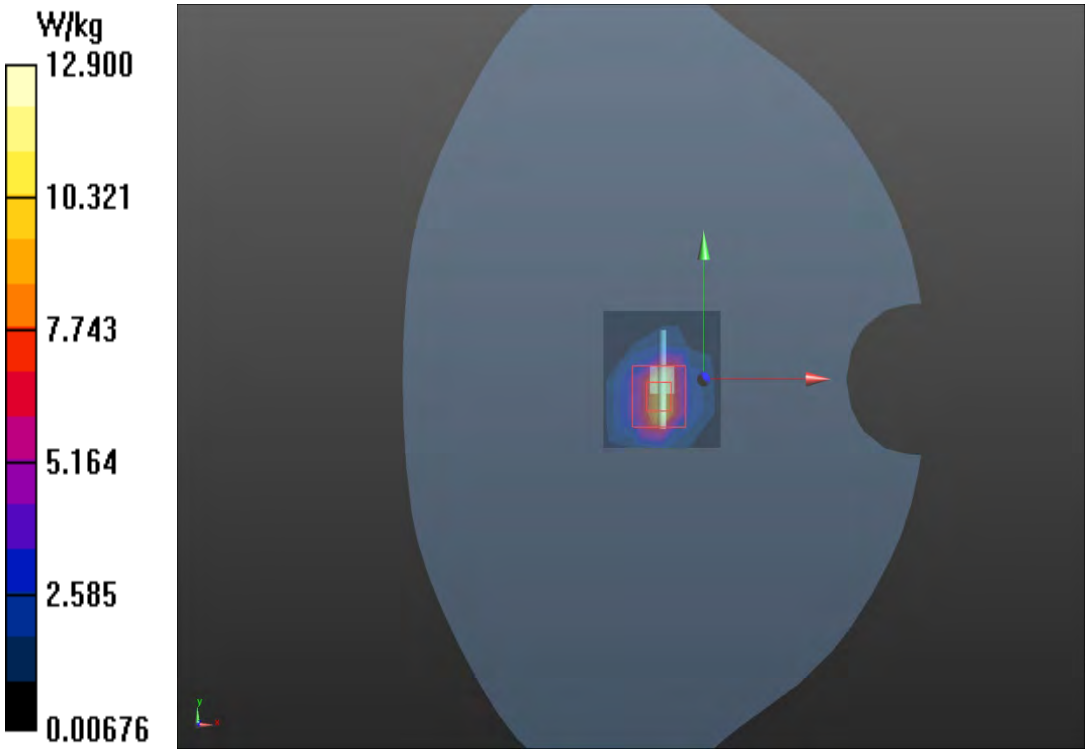
Peak SAR (extrapolated) = 18.2 W/kg

SAR(1 g) = 6.61 W/kg; SAR(10 g) = 2.54 W/kg

Smallest distance from peaks to all points 3 dB below = 9 mm

Ratio of SAR at M2 to SAR at M1= 58.5%

Maximum value of SAR (measured) = 12.9 W/kg



ANNEX C: Highest Graph Results

Plot 32 GSM 850 Right Cheek Middle

Date: 2022/12/22

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

Medium parameters used: f = 836.6 MHz; σ = 0.939 S/m; ε_r = 41.856; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Right Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(9.34, 9.34, 9.34); Calibrated: 2022/7/8

Electronics: DAE4 SN1291; Calibrated: 2022/3/24

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 (8x14x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.794 W/kg

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

Reference Value = 26.81 V/m; Power Drift = 0.01 dB

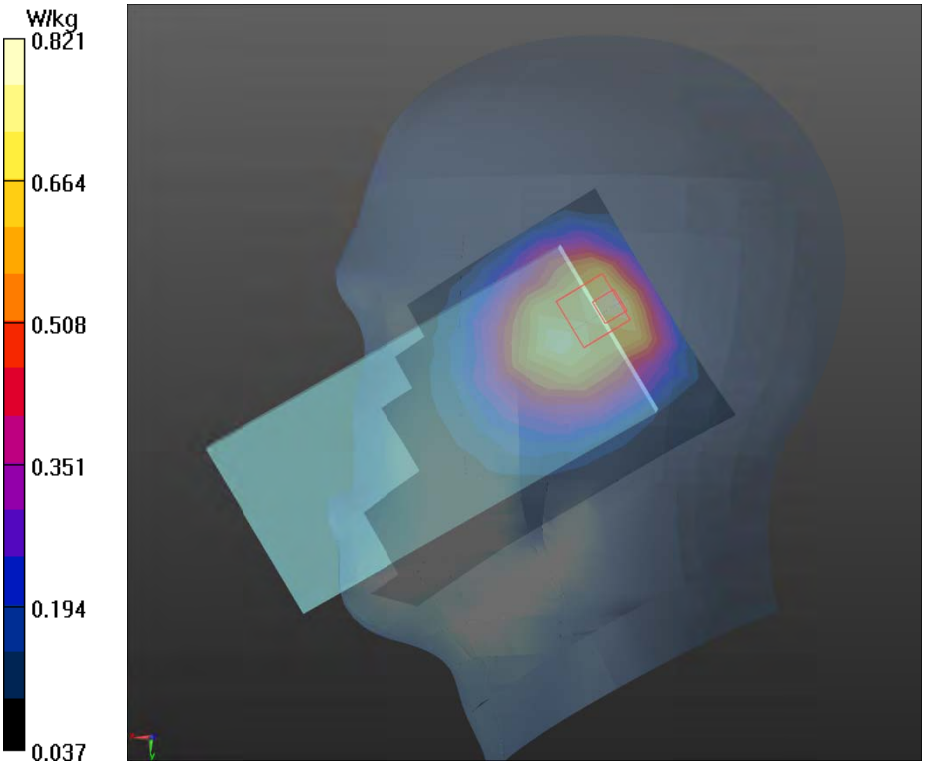
Peak SAR (extrapolated) = 1.31 W/kg

SAR(1 g) = 0.744 W/kg; SAR(10 g) = 0.470 W/kg

Smallest distance from peaks to all points 3 dB below = 16.5 mm

Ratio of SAR at M2 to SAR at M1 = 57.2%

Maximum value of SAR (measured) = 0.821 W/kg



Plot 33 GSM 1900 Left Cheek Middle

Date: 2022/12/4

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

Medium parameters used: f = 1880 MHz; σ = 1.406 S/m; ε_r = 39.087; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Left Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.84, 7.84, 7.84); Calibrated: 2022/7/8

Electronics: DAE4 SN1291; Calibrated: 2022/3/24

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) = 0.982 W/kg

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

Reference Value = 13.75 V/m; Power Drift = 0.10 dB

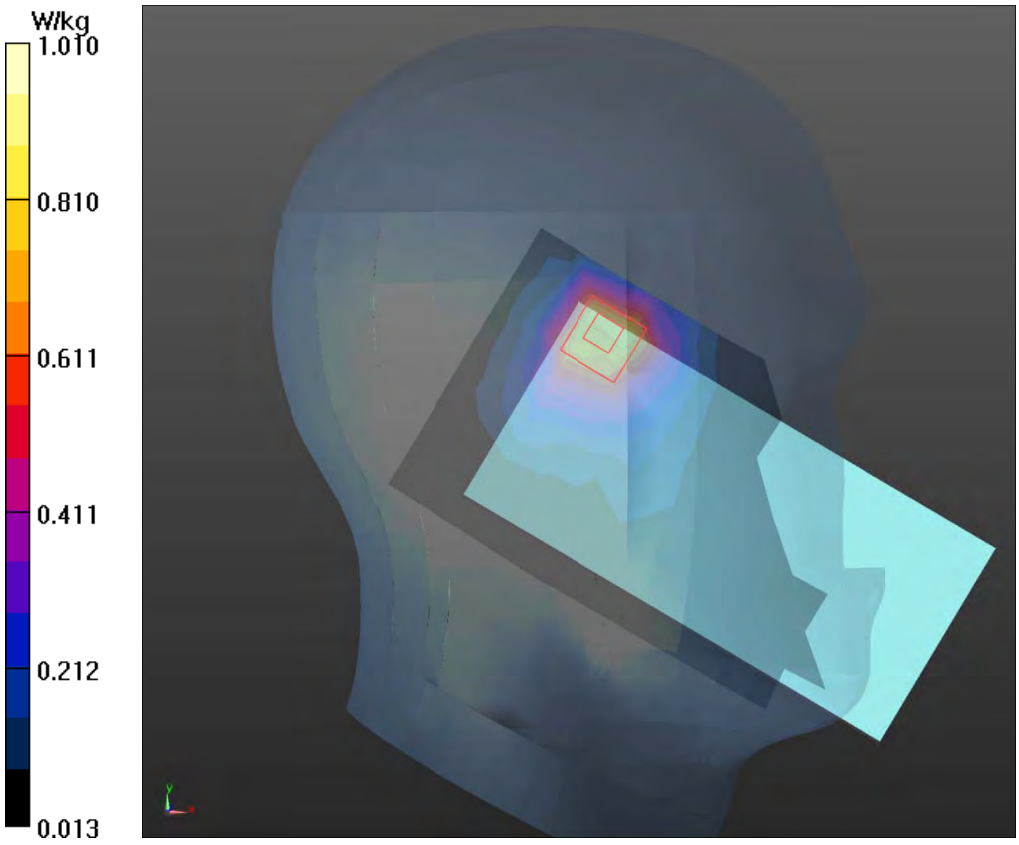
Peak SAR (extrapolated) = 1.72 W/kg

SAR(1 g) = 0.900 W/kg; SAR(10 g) = 0.475 W/kg

Smallest distance from peaks to all points 3 dB below = 12.2 mm

Ratio of SAR at M2 to SAR at M1 = 53.2%

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



Plot 34 WCDMA Band II Left Cheek Middle

Date: 2022/12/14

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

Medium parameters used: f = 1880 MHz; σ = 1.406 S/m; ε_r = 39.087; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Left Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.84, 7.84, 7.84); Calibrated: 2022/7/8

Electronics: DAE4 SN1291; Calibrated: 2022/3/24

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) = 1.05 W/kg

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

Reference Value = 14.35 V/m; Power Drift = -0.15 dB

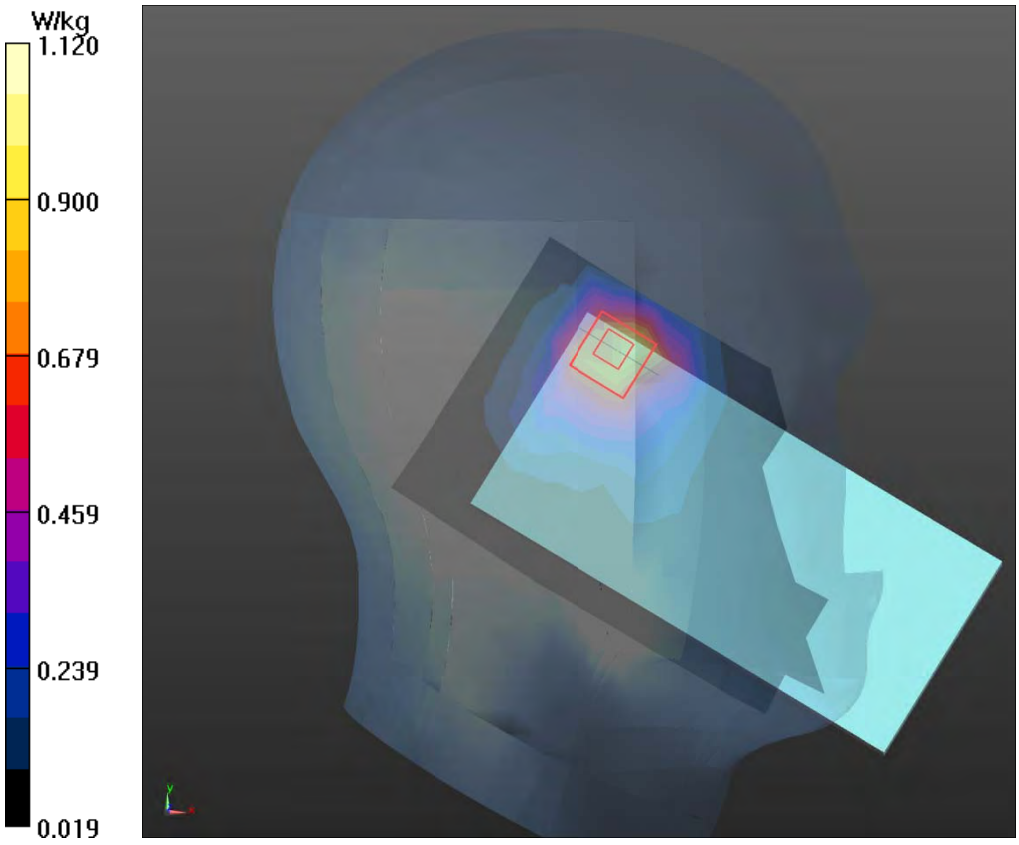
Peak SAR (extrapolated) = 1.93 W/kg

SAR(1 g) = 1.02 W/kg; SAR(10 g) = 0.513 W/kg

Smallest distance from peaks to all points 3 dB below = 12.2 mm

Ratio of SAR at M2 to SAR at M1 = 52.4%

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



Plot 35 WCDMA Band IV Left Cheek High

Date: 2022/12/17

Communication System: UID 0, WCDMA (0); Frequency: 1752.6 MHz;Duty Cycle: 1:1

Medium parameters used: f = 1752.6 MHz; σ = 1.317 S/m; ε_r = 39.38; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Left Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(8.25, 8.25, 8.25); Calibrated: 2022/7/8

Electronics: DAE4 SN1291; Calibrated: 2022/3/24

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

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

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

Maximum value of SAR (measured) = 0.976 W/kg

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

Reference Value = 15.07 V/m; Power Drift = 0.01 dB

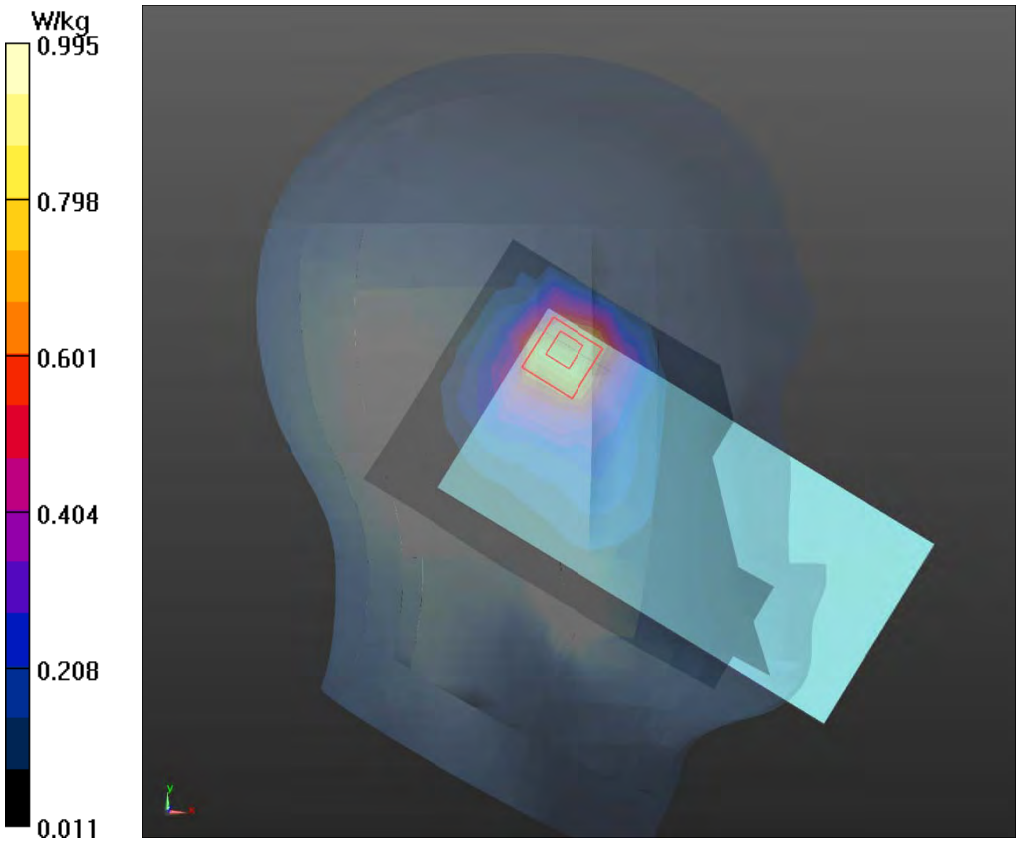
Peak SAR (extrapolated) = 1.49 W/kg

SAR(1 g) = 0.871 W/kg; SAR(10 g) = 0.507 W/kg

Smallest distance from peaks to all points 3 dB below = 12.3 mm

Ratio of SAR at M2 to SAR at M1 = 54.3%

Maximum value of SAR (measured) = 0.995 W/kg



Plot 36 WCDMA Band V Right Cheek Middle

Date: 2022/12/22

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

Medium parameters used: f = 836.6 MHz; σ = 0.939 S/m; ε_r = 41.856; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Right Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(9.34, 9.34, 9.34); Calibrated: 2022/7/8

Electronics: DAE4 SN1291; Calibrated: 2022/3/24

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 (8x14x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.943 W/kg

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

Reference Value = 27.52 V/m; Power Drift = -0.12 dB

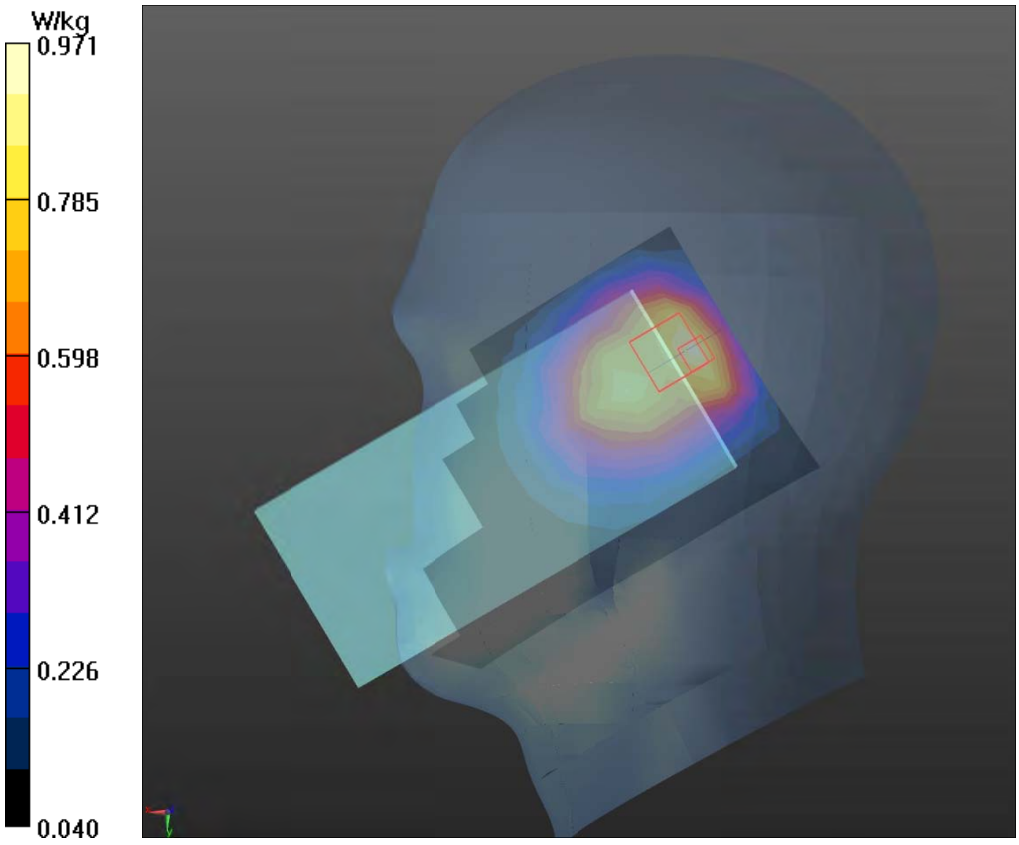
Peak SAR (extrapolated) = 1.53 W/kg

SAR(1 g) = 0.899 W/kg; SAR(10 g) = 0.545 W/kg

Smallest distance from peaks to all points 3 dB below = 14.4 mm

Ratio of SAR at M2 to SAR at M1 = 57.3%

Maximum value of SAR (measured) = 0.971 W/kg



Plot 37 LTE Band 2 1RB Left Cheek Low

Date: 2022/12/6

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

Medium parameters used: f = 1860 MHz; σ = 1.39 S/m; ε_r = 39.098; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Left Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.84, 7.84, 7.84); Calibrated: 2022/7/8

Electronics: DAE4 SN1291; Calibrated: 2022/3/24

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 (8x14x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 1.19 W/kg

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

Reference Value = 15.23 V/m; Power Drift = 0.04 dB

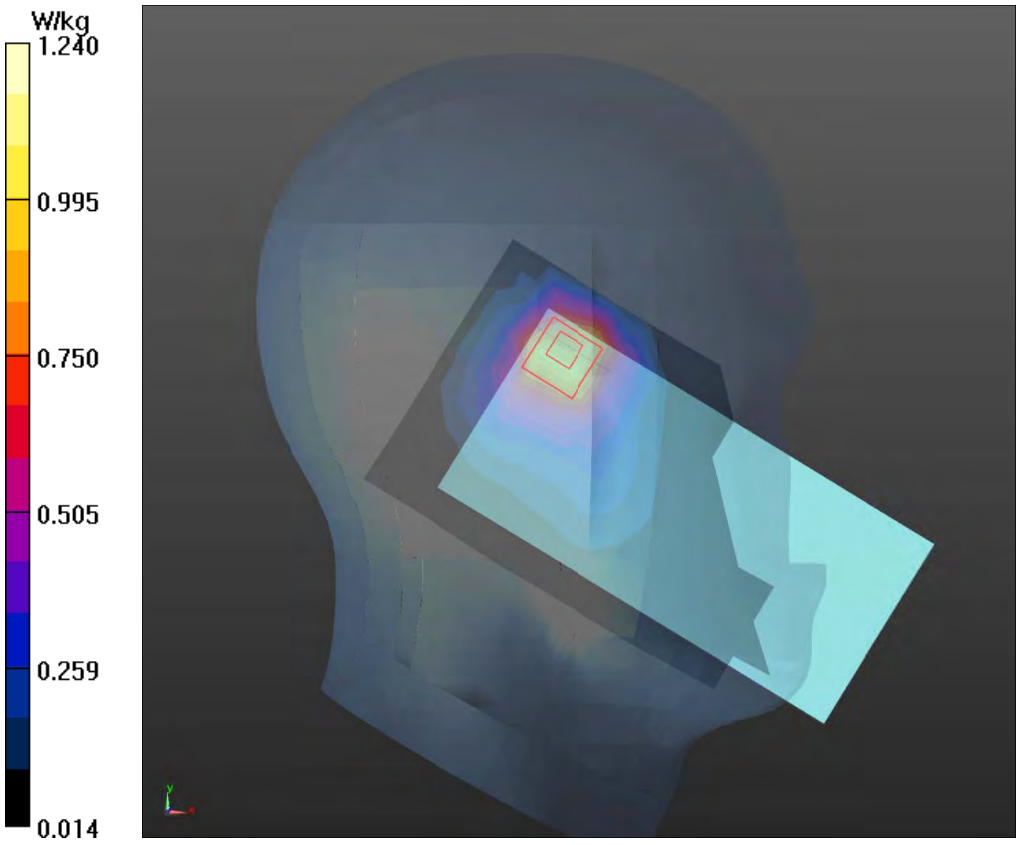
Peak SAR (extrapolated) = 2.13 W/kg

SAR(1 g) = 1.08 W/kg; SAR(10 g) = 0.568 W/kg

Smallest distance from peaks to all points 3 dB below = 10.2 mm

Ratio of SAR at M2 to SAR at M1 = 51.7%

Maximum value of SAR (measured) = 1.24 W/kg



Plot 38 LTE Band 4 100%RB Left Cheek Middle

Date: 2022/12/18

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

Medium parameters used (interpolated): f = 1732.5 MHz; σ = 1.301 S/m; ε_r = 39.474; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Left Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(8.25, 8.25, 8.25); Calibrated: 2022/7/8

Electronics: DAE4 SN1291; Calibrated: 2022/3/24

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) = 0.998 W/kg

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

Reference Value = 13.99 V/m; Power Drift = 0.10 dB

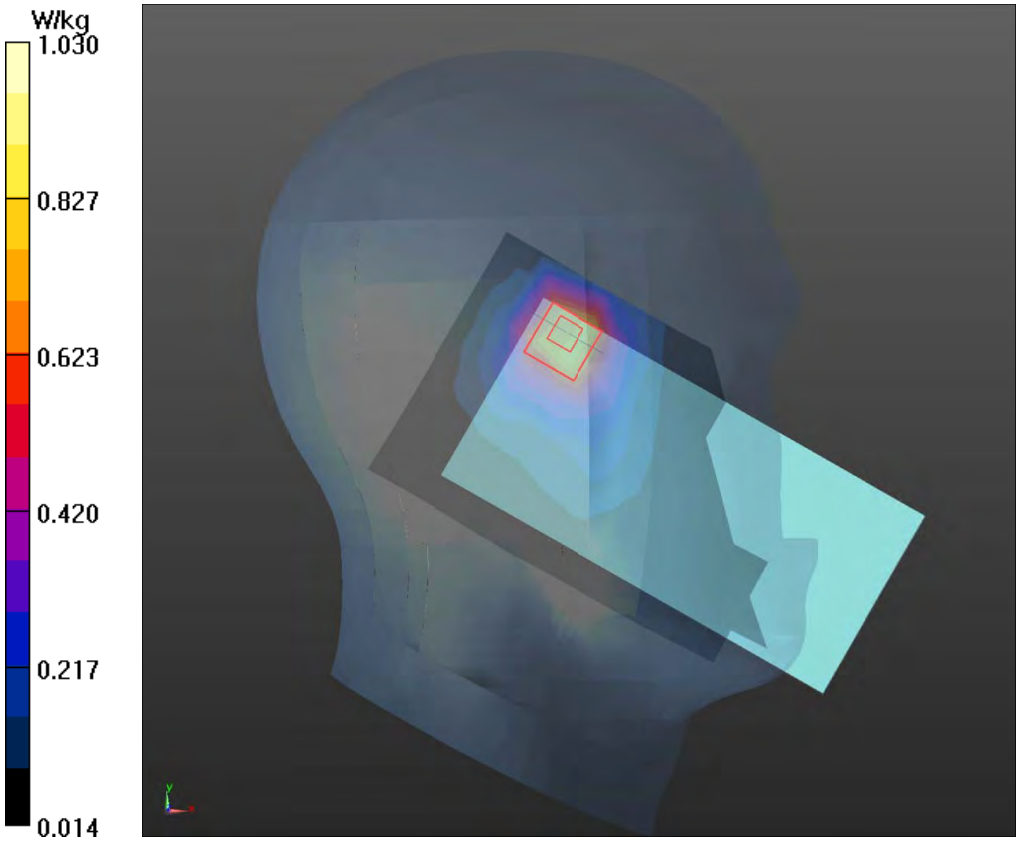
Peak SAR (extrapolated) = 1.69 W/kg

SAR(1 g) = 0.920 W/kg; SAR(10 g) = 0.504 W/kg

Smallest distance from peaks to all points 3 dB below = 13.8 mm

Ratio of SAR at M2 to SAR at M1 = 56.6%

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



Plot 39 LTE Band 5 1RB Left Cheek Middle

Date: 2022/12/5

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

Medium parameters used (interpolated): f = 836.5 MHz; σ = 0.939 S/m; ε_r = 41.86; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Left Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(9.34, 9.34, 9.34); Calibrated: 2022/7/8

Electronics: DAE4 SN1291; Calibrated: 2022/3/24

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) = 0.985 W/kg

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

Reference Value = 27.78 V/m; Power Drift = 0.08 dB

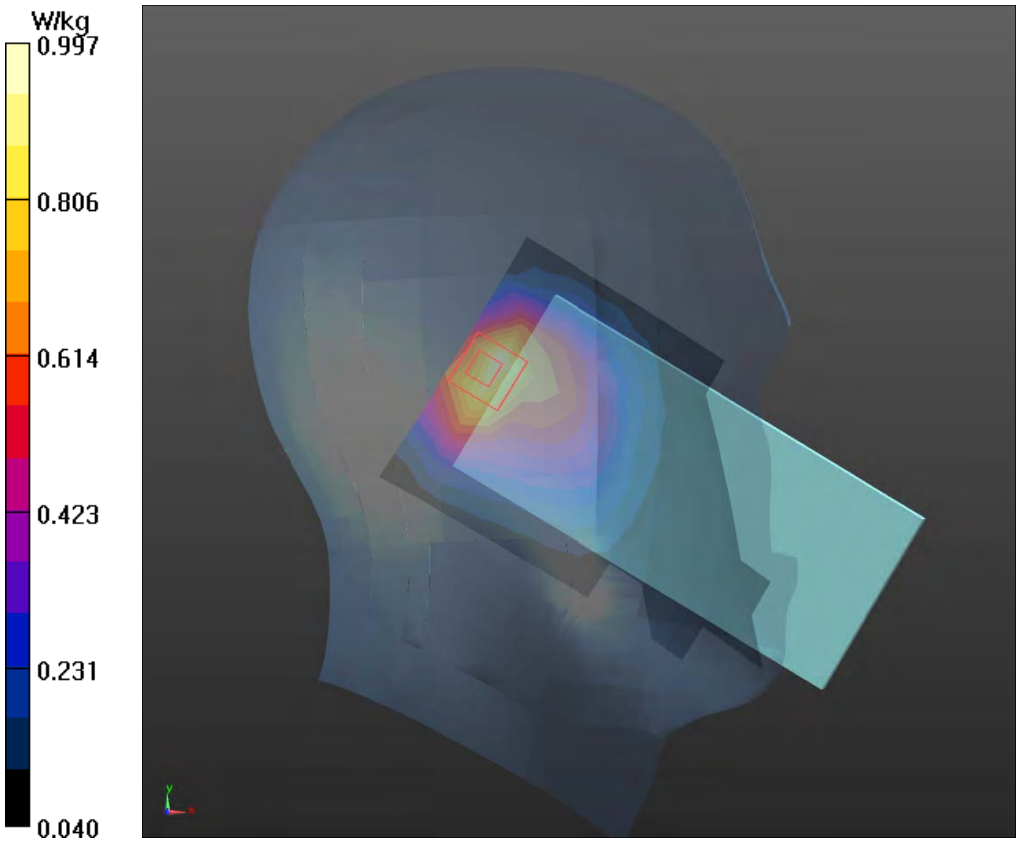
Peak SAR (extrapolated) = 1.67 W/kg

SAR(1 g) = 0.920 W/kg; SAR(10 g) = 0.537 W/kg

Smallest distance from peaks to all points 3 dB below = 17.5 mm

Ratio of SAR at M2 to SAR at M1 = 57.5%

Maximum value of SAR (measured) = 0.997 W/kg



Plot 40 LTE Band 7 1RB Right Cheek High

Date: 2022/12/7

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

Medium parameters used: f = 2560 MHz; σ = 1.9 S/m; ε_r = 38.262; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Right Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.27, 7.27, 7.27); Calibrated: 2022/7/8

Electronics: DAE4 SN1291; Calibrated: 2022/3/24

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 (10x18x1): Measurement grid: dx=12mm, dy=12mm

Maximum value of SAR (measured) = 0.915 W/kg

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

Reference Value = 7.386 V/m; Power Drift = 0.049 dB

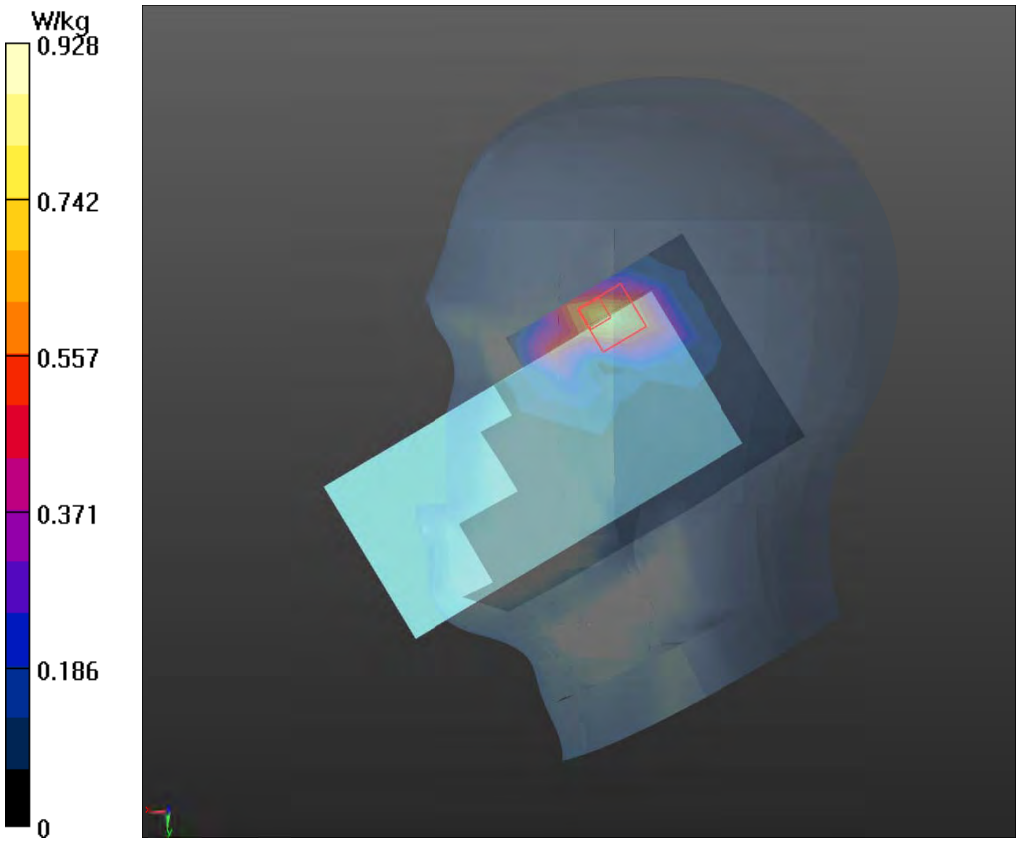
Peak SAR (extrapolated) = 1.54 W/kg

SAR(1 g) = 0.854 W/kg; SAR(10 g) = 0.337 W/kg

Smallest distance from peaks to all points 3 dB below = 9 mm

Ratio of SAR at M2 to SAR at M1 = 46.5%

Maximum value of SAR (measured) = 0.928 W/kg



Plot 41 LTE Band 12 1RB Left Cheek High

Date: 2022/12/3

Communication System: UID 0, LTE (0); Frequency: 711 MHz;Duty Cycle: 1:1

Medium parameters used: f = 711 MHz; σ = 0.896 S/m; ε_r = 42.2; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Left Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(9.63, 9.63, 9.63); Calibrated: 2022/7/8

Electronics: DAE4 SN1291; Calibrated: 2022/3/24

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

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

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

Maximum value of SAR (measured) = 0.780 W/kg

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

Reference Value = 26.17 V/m; Power Drift = -0.06 dB

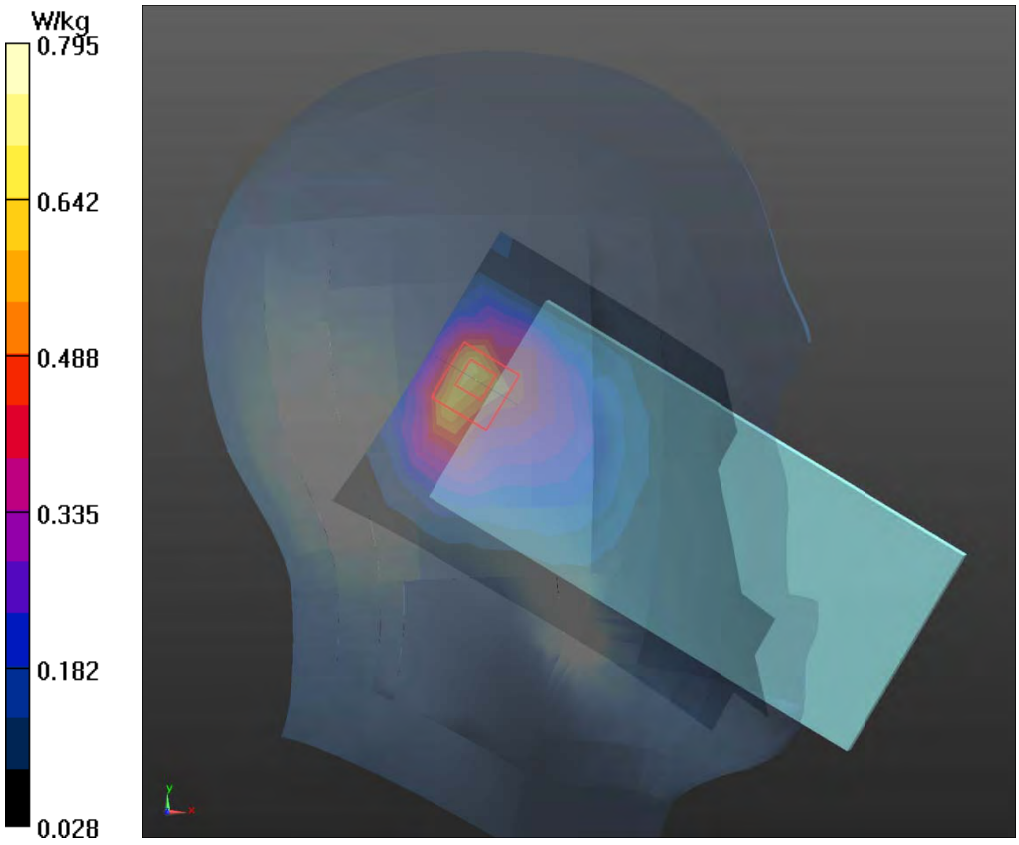
Peak SAR (extrapolated) = 1.22 W/kg

SAR(1 g) = 0.674 W/kg; SAR(10 g) = 0.378 W/kg

Smallest distance from peaks to all points 3 dB below = 13.3 mm

Ratio of SAR at M2 to SAR at M1 = 53.8%

Maximum value of SAR (measured) = 0.795 W/kg



Plot 42 LTE Band 13 1RB Left Cheek Middle

Date: 2022/12/3

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

Medium parameters used: f = 782 MHz; σ = 0.921 S/m; ε_r = 41.805; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Left Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(9.63, 9.63, 9.63); Calibrated: 2022/7/8

Electronics: DAE4 SN1291; Calibrated: 2022/3/24

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) = 0.857 W/kg

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

Reference Value = 25.89 V/m; Power Drift = 0.18 dB

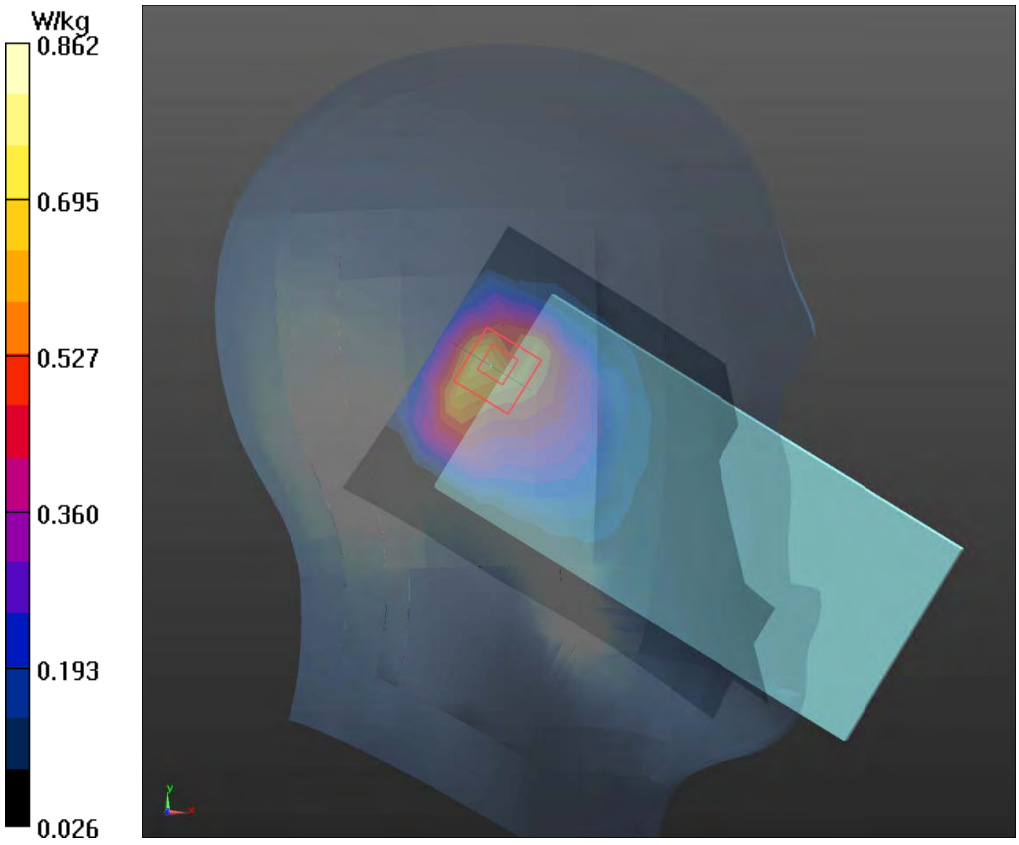
Peak SAR (extrapolated) = 1.39 W/kg

SAR(1 g) = 0.772 W/kg; SAR(10 g) = 0.432 W/kg

Smallest distance from peaks to all points 3 dB below = 13.7 mm

Ratio of SAR at M2 to SAR at M1 = 53.5%

Maximum value of SAR (measured) = 0.862 W/kg



Plot 43 LTE Band 25 50%RB Left Cheek Low

Date: 2022/12/6

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

Medium parameters used: f = 1860 MHz; σ = 1.39 S/m; ε_r = 39.098; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Left Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.84, 7.84, 7.84); Calibrated: 2022/7/8

Electronics: DAE4 SN1291; Calibrated: 2022/3/24

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 (8x14x1): Measurement grid: dx=15mm, dy=15mm

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

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

Reference Value = 14.93 V/m; Power Drift = 0.03 dB

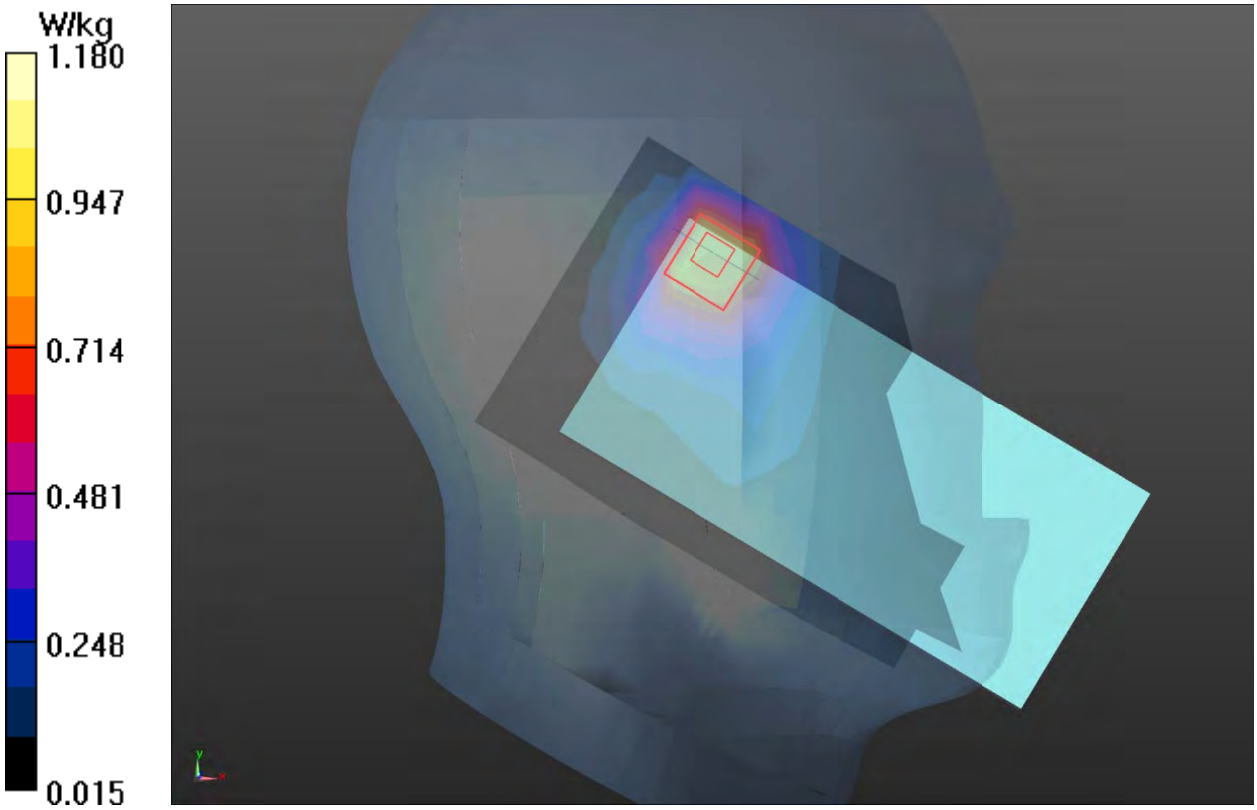
Peak SAR (extrapolated) = 2.02 W/kg

SAR(1 g) = 1.06 W/kg; SAR(10 g) = 0.566 W/kg

Smallest distance from peaks to all points 3 dB below = 12.6 mm

Ratio of SAR at M2 to SAR at M1 = 53.5%

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



Plot 44 LTE Band 26 1RB Left Cheek High

Date: 2022/12/5

Communication System: UID 0, LTE (0); Frequency: 841.5 MHz;Duty Cycle: 1:1

Medium parameters used (interpolated): f = 841.5 MHz; σ = 0.941 S/m; ε_r = 41.844; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Left Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(9.34, 9.34, 9.34); Calibrated: 2022/7/8

Electronics: DAE4 SN1291; Calibrated: 2022/3/24

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

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

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

Maximum value of SAR (measured) = 0.998 W/kg

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

Reference Value = 29.24 V/m; Power Drift = -0.04 dB

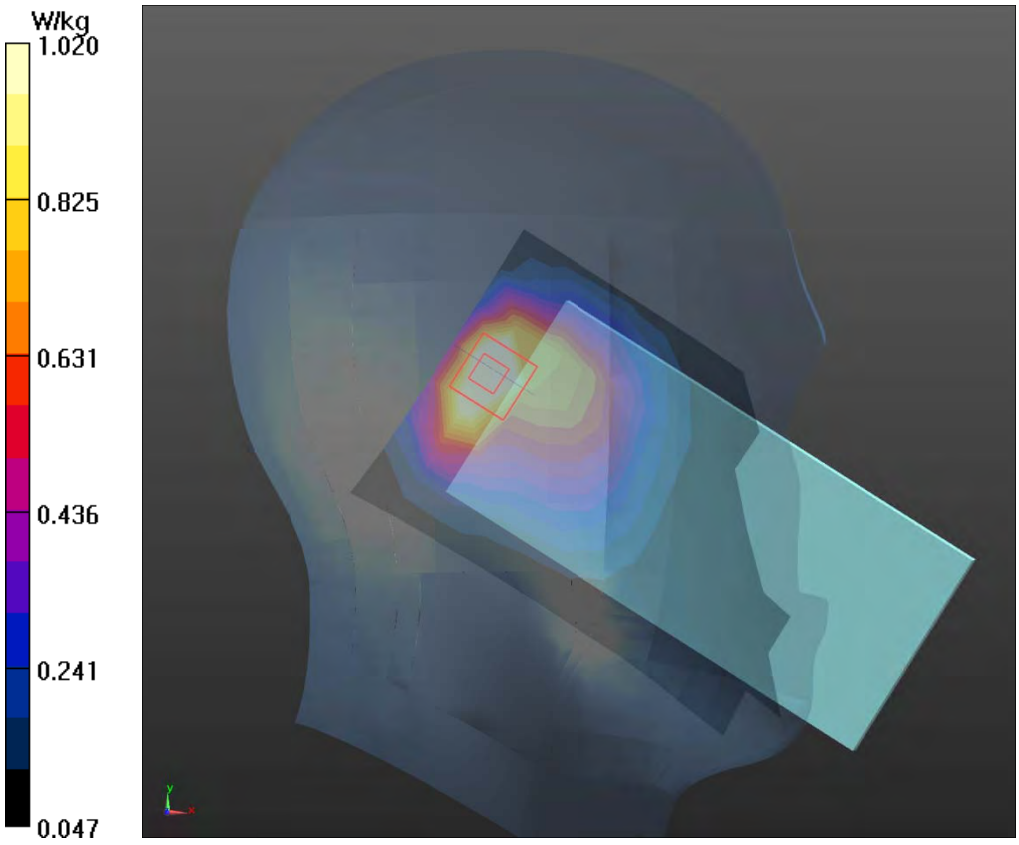
Peak SAR (extrapolated) = 1.74 W/kg

SAR(1 g) = 0.856 W/kg; SAR(10 g) = 0.489 W/kg

Smallest distance from peaks to all points 3 dB below = 12.3 mm

Ratio of SAR at M2 to SAR at M1 = 48.5%

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



Plot 45 LTE Band 41 1RB Right Cheek High

Date: 2022/12/11

Communication System: UID 0, LTE (0); Frequency: 2636.5 MHz;Duty Cycle: 1:1

Medium parameters used (interpolated): f = 2636.5 MHz; σ = 2.054 S/m; ε_r = 36.947; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Right Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.27, 7.27, 7.27); Calibrated: 2022/7/8

Electronics: DAE4 SN1291; Calibrated: 2022/3/24

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 (10x18x1): Measurement grid: dx=12mm, dy=12mm

Maximum value of SAR (measured) = 0.998 W/kg

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

Reference Value = 8.623 V/m; Power Drift = 0.024 dB

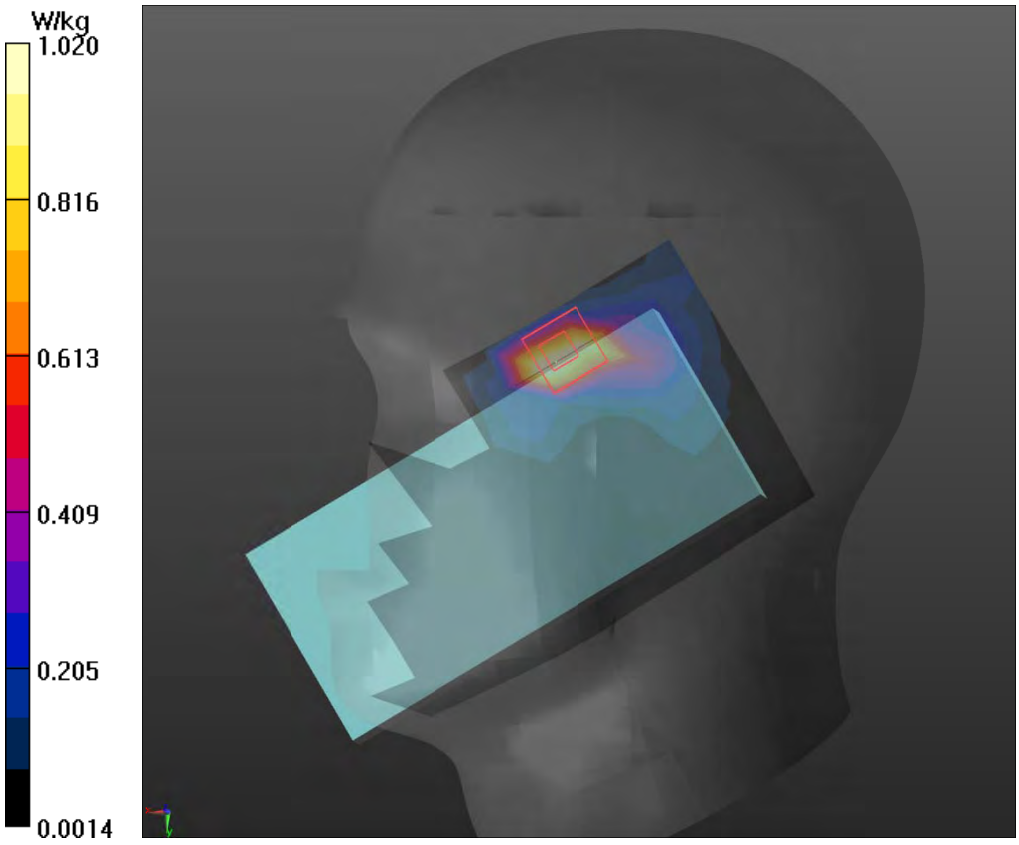
Peak SAR (extrapolated) = 1.56 W/kg

SAR(1 g) = 0.869 W/kg; SAR(10 g) = 0.346 W/kg

Smallest distance from peaks to all points 3 dB below = 8.8 mm

Ratio of SAR at M2 to SAR at M1 = 37.2%

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



Plot 46 LTE Band 48 1RB Left Tilt Low

Date: 2022/12/21

Communication System: UID 0, LTE (0); Frequency: 3660 MHz;Duty Cycle: 1:1.58

Medium parameters used: f = 3660 MHz; σ = 3.015 S/m; ε_r = 37.936; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Left Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(6.64, 6.64, 6.64); Calibrated: 2022/7/8

Electronics: DAE4 SN1291; Calibrated: 2022/3/24

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

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

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

Maximum value of SAR (measured) = 0.276 W/kg

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

Reference Value = 4.044 V/m; Power Drift = 0.01 dB

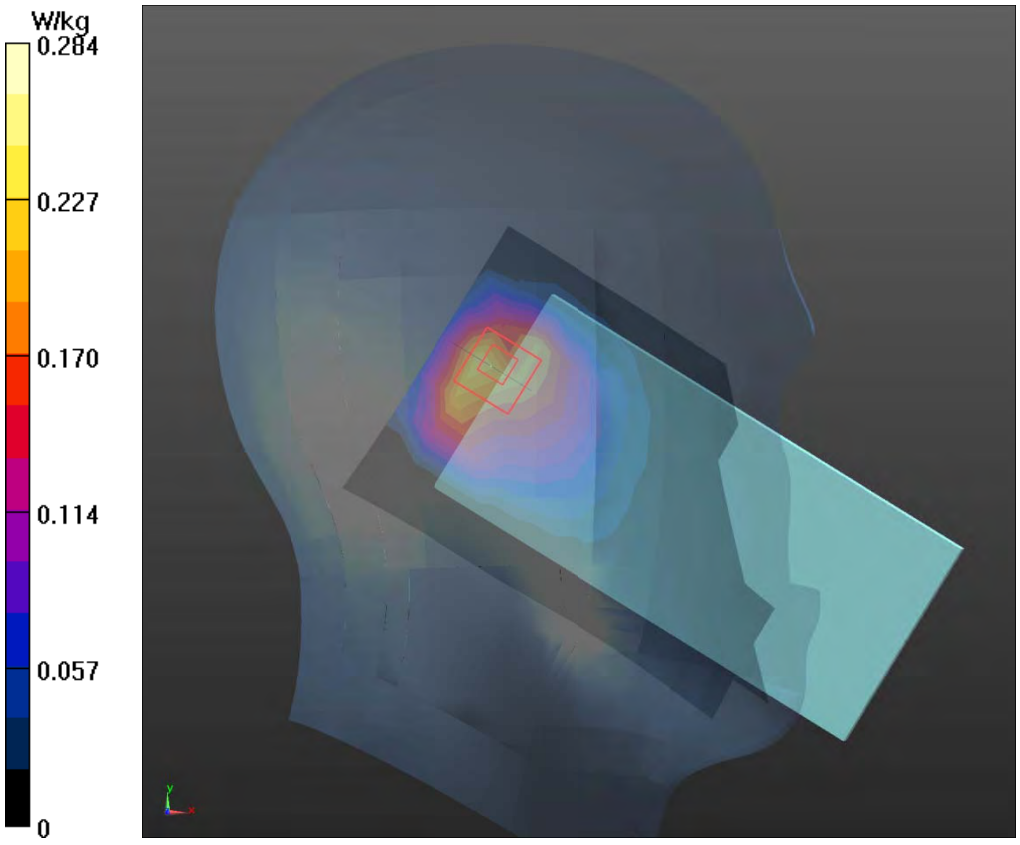
Peak SAR (extrapolated) = 0.440 W/kg

SAR(1 g) = 0.241W/kg; SAR(10 g) = 0.076 W/kg

Smallest distance from peaks to all points 3 dB below = 8.4 mm

Ratio of SAR at M2 to SAR at M1 = 38.3%

Maximum value of SAR (measured) = 0.284 W/kg



Plot 47 LTE Band 66 1RB Left Cheek High

Date: 2022/12/10

Communication System: UID 0, LTE (0); Frequency: 1770 MHz;Duty Cycle: 1:1

Medium parameters used: f = 1770 MHz; σ = 1.329 S/m; ε_r = 39.321; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Left Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(8.25, 8.25, 8.25); Calibrated: 2022/7/8

Electronics: DAE4 SN1291; Calibrated: 2022/3/24

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

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

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

Maximum value of SAR (measured) = 1.22 W/kg

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

Reference Value = 15.66 V/m; Power Drift = 0.07 dB

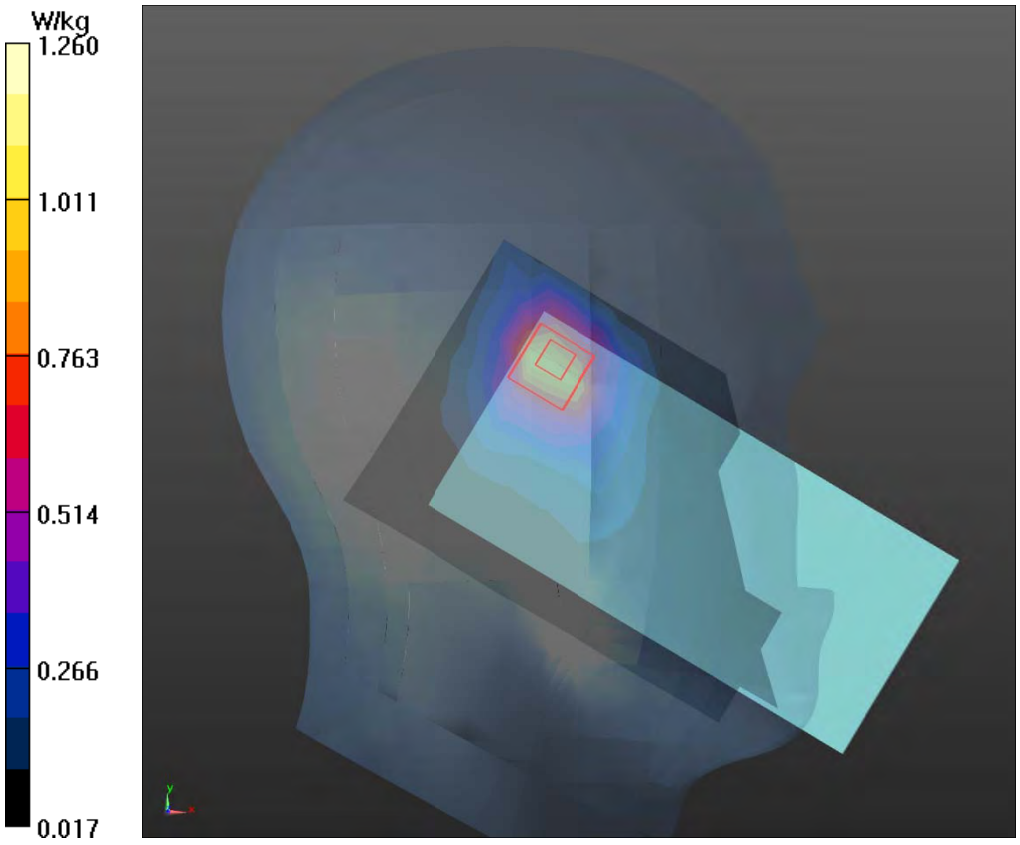
Peak SAR (extrapolated) = 2.03 W/kg

SAR(1 g) = 1.08 W/kg; SAR(10 g) = 0.603 W/kg

Smallest distance from peaks to all points 3 dB below = 12.4 mm

Ratio of SAR at M2 to SAR at M1 = 57%

Maximum value of SAR (measured) = 1.26 W/kg



Plot 48 LTE Band 71 1RB Left Cheek Low

Date: 2022/12/5

Communication System: UID 0, LTE (0); Frequency: 673 MHz;Duty Cycle: 1:1

Medium parameters used: f = 673 MHz; σ = 0.883 S/m; ε_r = 42.341; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Left Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(9.63, 9.63, 9.63); Calibrated: 2022/7/8

Electronics: DAE4 SN1291; Calibrated: 2022/3/24

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 (8x14x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.652 W/kg

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

Reference Value = 28.60 V/m; Power Drift = -0.01 dB

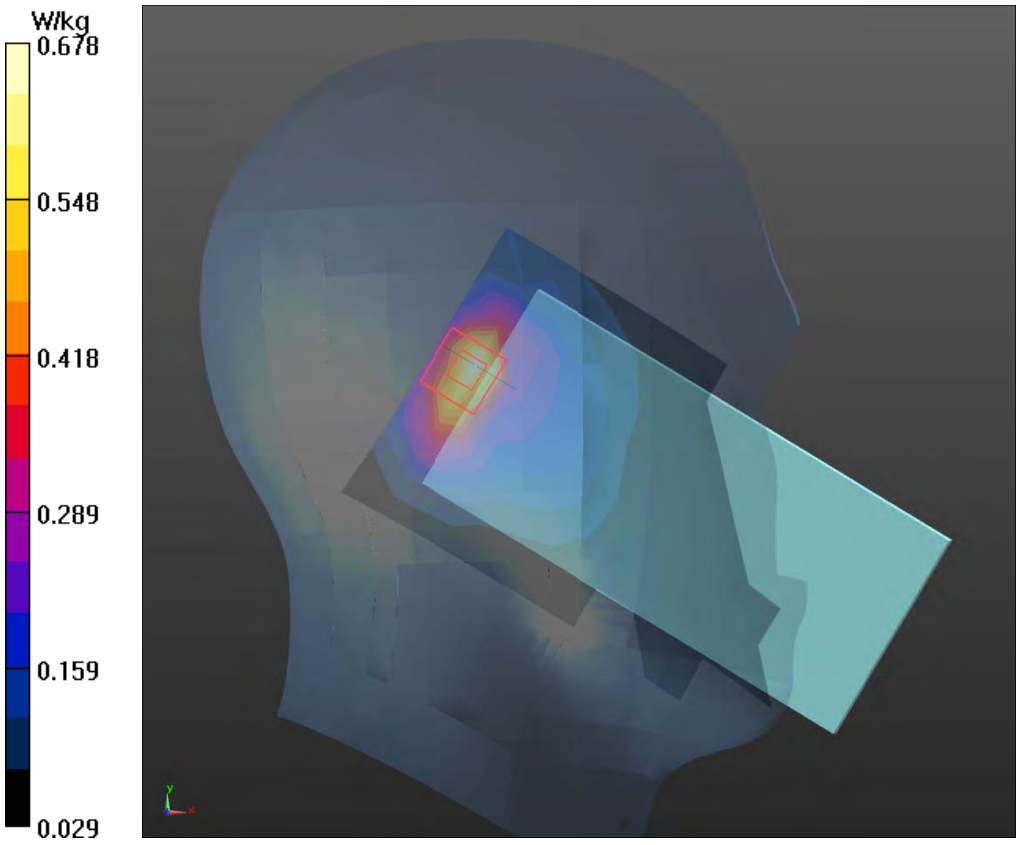
Peak SAR (extrapolated) = 1.15 W/kg

SAR(1 g) = 0.596 W/kg; SAR(10 g) = 0.329 W/kg

Smallest distance from peaks to all points 3 dB below = 11.2 mm

Ratio of SAR at M2 to SAR at M1 = 50.9%

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



Plot 49 NR Band n2 50%RB Left Cheek Low

Date: 2022/12/12

Communication System: UID 0, 5G NR (0); Frequency: 1860 MHz;Duty Cycle: 1:1

Medium parameters used: f = 1860 MHz; σ = 1.422 S/m; ε_r = 37.402; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Left Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.84, 7.84, 7.84); Calibrated: 2022/7/8

Electronics: DAE4 SN1291; Calibrated: 2022/3/24

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 (8x14x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 1.56 W/kg

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

Reference Value = 18.82 V/m; Power Drift = 0.02 dB

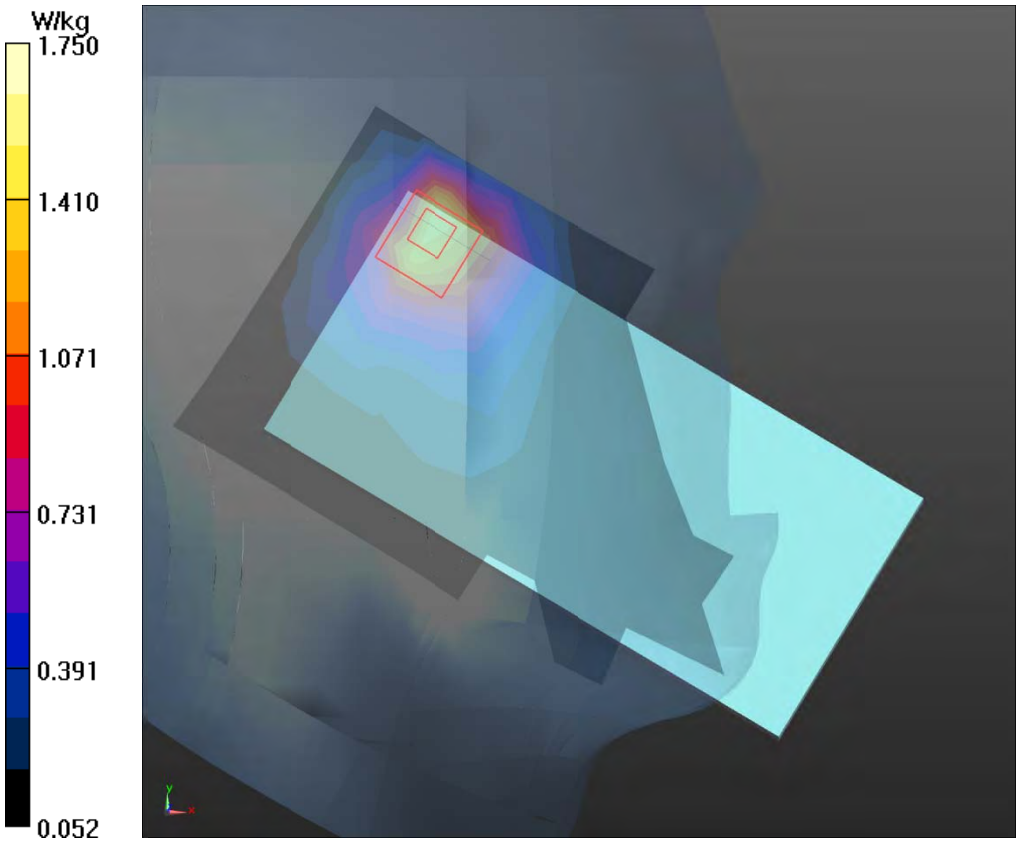
Peak SAR (extrapolated) = 2.13 W/kg

SAR(1 g) = 1.13 W/kg; SAR(10 g) = 0.624 W/kg

Smallest distance from peaks to all points 3 dB below = 12.5 mm

Ratio of SAR at M2 to SAR at M1 = 51.6%

Maximum value of SAR (measured) = 1.75 W/kg



Plot 50 NR Band n5 1RB Left Cheek High

Date: 2023/1/11

Communication System: UID 0, 5G NR (0); Frequency: 839 MHz;Duty Cycle: 1:1

Medium parameters used: f = 839 MHz; σ = 0.94 S/m; ε_r = 41.688; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Left Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.84, 7.84, 7.84); Calibrated: 2022/7/8

Electronics: DAE4 SN1291; Calibrated: 2022/3/24

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

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

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

Maximum value of SAR (measured) = 0.835 W/kg

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

Reference Value = 31.42 V/m; Power Drift = 0.039 dB

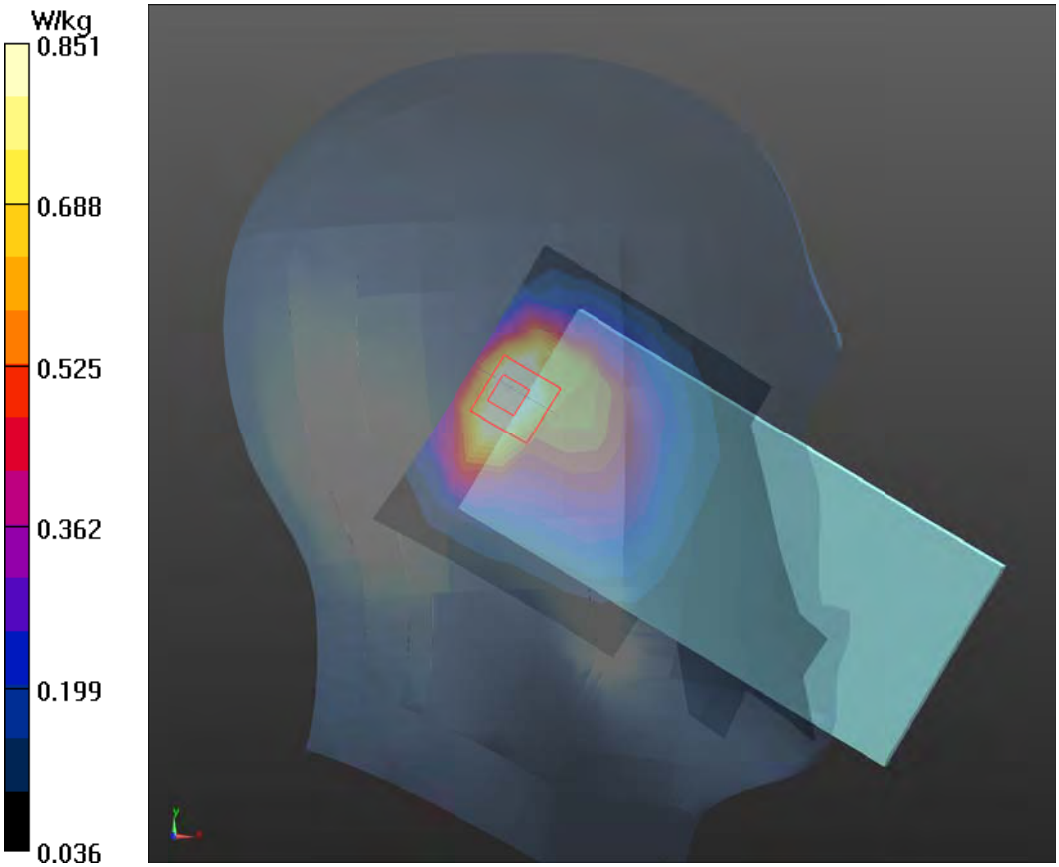
Peak SAR (extrapolated) = 1.35 W/kg

SAR(1 g) = 0.776 W/kg; SAR(10 g) = 0.445 W/kg

Smallest distance from peaks to all points 3 dB below = 12.2 mm

Ratio of SAR at M2 to SAR at M1 = 48.7%

Maximum value of SAR (measured) = 0.851 W/kg



Plot 51 NR Band n25 50%RB Left Cheek Low

Date: 2022/12/15

Communication System: UID 0, 5G NR (0); Frequency: 1860 MHz;Duty Cycle: 1:1

Medium parameters used: f = 1860 MHz; σ = 1.422 S/m; ε_r = 37.402; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Left Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.84, 7.84, 7.84); Calibrated: 2022/7/8

Electronics: DAE4 SN1291; Calibrated: 2022/3/24

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 (8x14x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.862 W/kg

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

Reference Value = 13.27 V/m; Power Drift = -0.04 dB

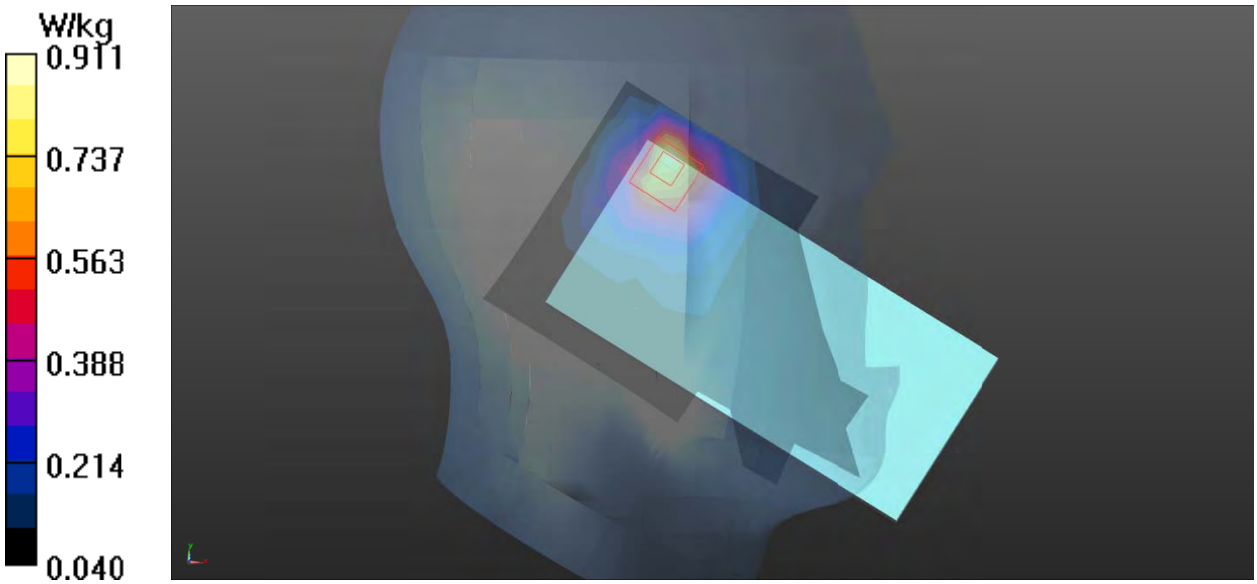
Peak SAR (extrapolated) = 1.10 W/kg

SAR(1 g) = 0.589 W/kg; SAR(10 g) = 0.328 W/kg

Smallest distance from peaks to all points 3 dB below = 11.5 mm

Ratio of SAR at M2 to SAR at M1 = 52.8%

Maximum value of SAR (measured) = 0.911 W/kg



Plot 52 NR Band n30 1RB Right Cheek Middle

Date: 2022/12/16

Communication System: UID 0, 5G NR (0); Frequency: 2310 MHz;Duty Cycle: 1:1

Medium parameters used: f = 2310 MHz; σ = 1.681 S/m; ε_r = 38.94; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Right Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.76, 7.76, 7.76); Calibrated: 2022/7/8

Electronics: DAE4 SN1291; Calibrated: 2022/3/24

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) = 0.561 W/kg

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

Reference Value = 5.128 V/m; Power Drift = 0.033 dB

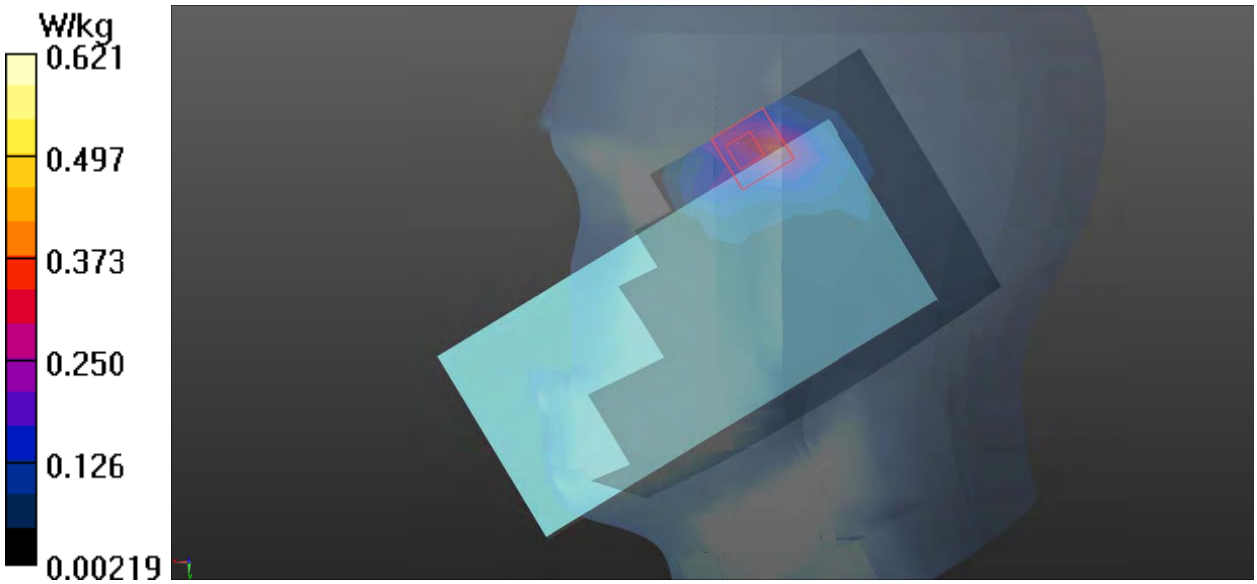
Peak SAR (extrapolated) = 1.01 W/kg

SAR(1 g) = 0.516 W/kg; SAR(10 g) = 0.229 W/kg

Smallest distance from peaks to all points 3 dB below = 8.2 mm

Ratio of SAR at M2 to SAR at M1 = 52.5%

Maximum value of SAR (measured) = 0.621 W/kg



Plot 53 NR Band n41 1RB Right Cheek Low

Date: 2022/12/16

Communication System: UID 0, 5G NR (0); Frequency: 2546.01 MHz;Duty Cycle: 1:1

Medium parameters used (interpolated): f = 2546.01 MHz; σ = 1.938 S/m; ε_r = 38.012; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Right Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.27, 7.27, 7.27); Calibrated: 2022/7/8

Electronics: DAE4 SN1291; Calibrated: 2022/3/24

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

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

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

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

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

Reference Value = 5.695 V/m; Power Drift = 0.028 dB

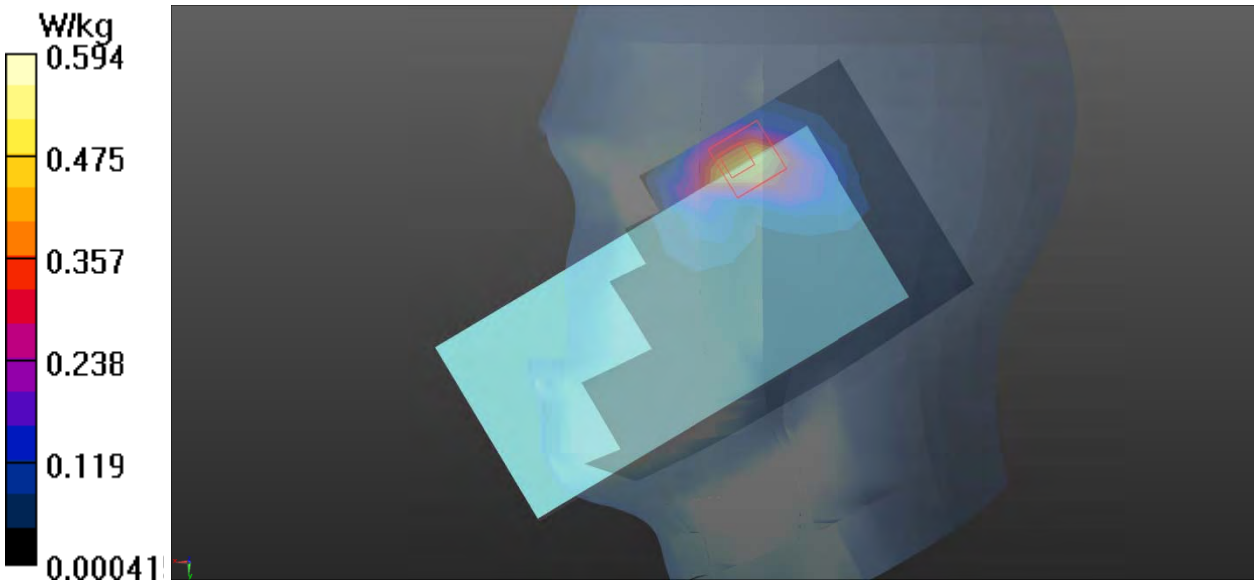
Peak SAR (extrapolated) = 1.17 W/kg

SAR(1 g) = 0.509 W/kg; SAR(10 g) = 0.223 W/kg

Smallest distance from peaks to all points 3 dB below = 6.6 mm

Ratio of SAR at M2 to SAR at M1 = 47%

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



Plot 54 NR Band n48 50%RB Left Tilt Low

Date: 2023/1/10

Communication System: UID 0, 5G NR (0); Frequency: 3600 MHz;Duty Cycle: 1:1

Medium parameters used: f = 3600 MHz; σ = 2.909 S/m; ε_r = 37.996; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Left Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(6.64, 6.64, 6.64); Calibrated: 2022/7/8

Electronics: DAE4 SN1291; Calibrated: 2022/3/24

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

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

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

Maximum value of SAR (measured) = 0.392 W/kg

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

Reference Value = 6.439 V/m; Power Drift = 0.076 dB

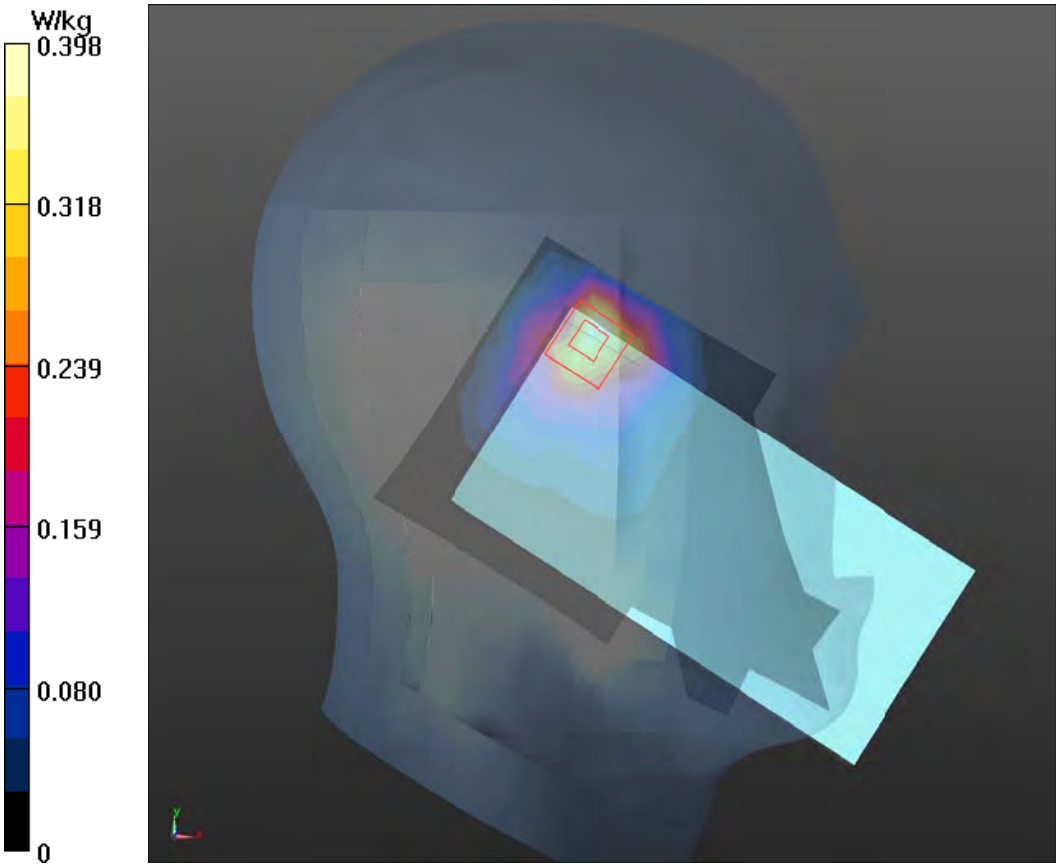
Peak SAR (extrapolated) = 0.704 W/kg

SAR(1 g) = 0.364 W/kg; SAR(10 g) = 0.129 W/kg

Smallest distance from peaks to all points 3 dB below = 8.4 mm

Ratio of SAR at M2 to SAR at M1 = 34.9%

Maximum value of SAR (measured) = 0.398 W/kg



Plot 55 NR Band n66 50%RB Left Cheek Middle

Date: 2022/12/20

Communication System: UID 0, 5G NR (0); Frequency: 1745 MHz;Duty Cycle: 1:1

Medium parameters used: f = 1745 MHz; σ = 1.338 S/m; ε_r = 37.717; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Left Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(8.25, 8.25, 8.25); Calibrated: 2022/7/8

Electronics: DAE4 SN1291; Calibrated: 2022/3/24

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) = 1.26 W/kg

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

Reference Value = 16.03 V/m; Power Drift = -0.10 dB

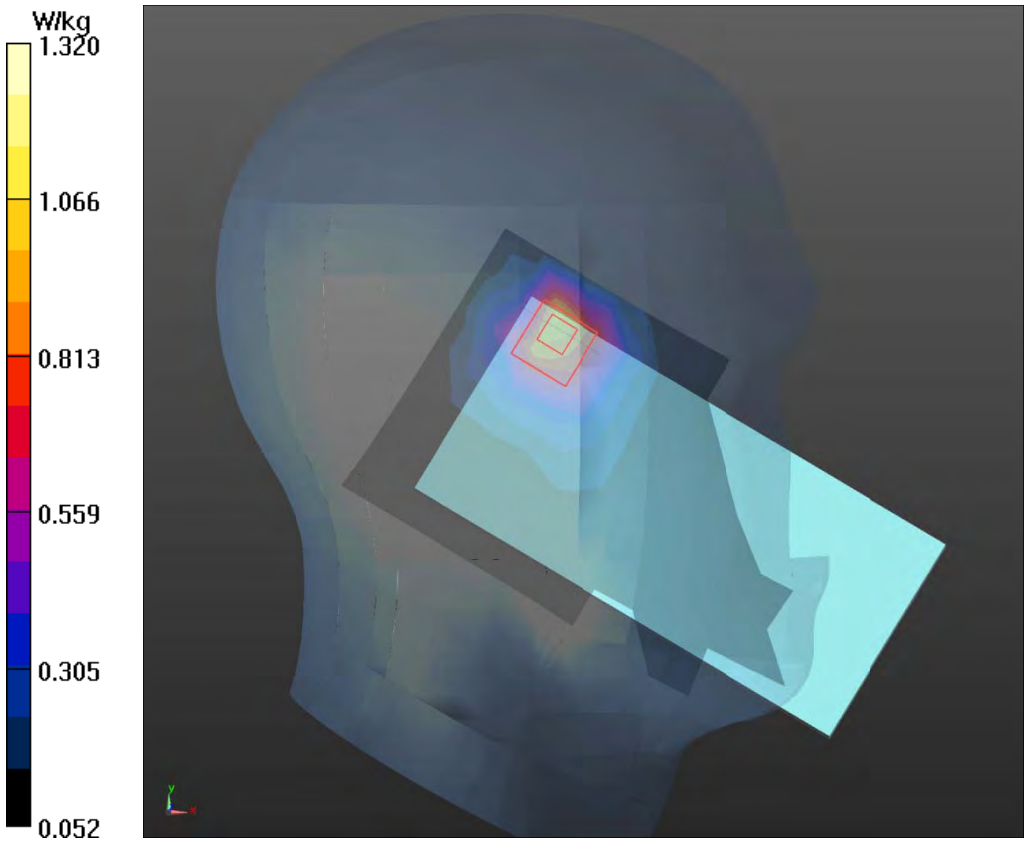
Peak SAR (extrapolated) = 1.98 W/kg

SAR(1 g) = 1.02 W/kg; SAR(10 g) = 0.532 W/kg

Smallest distance from peaks to all points 3 dB below = 11.5 mm

Ratio of SAR at M2 to SAR at M1 = 52%

Maximum value of SAR (measured) = 1.32 W/kg



Plot 56 NR Band n71 50%RB Left Cheek High

Date: 2022/12/5

Communication System: UID 0, 5G NR (0); Frequency: 688 MHz;Duty Cycle: 1:1

Medium parameters used: f = 688 MHz; σ = 0.888 S/m; ε_r = 42.289; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Left Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(9.63, 9.63, 9.63); Calibrated: 2022/7/8

Electronics: DAE4 SN1291; Calibrated: 2022/3/24

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

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

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

Maximum value of SAR (measured) = 0.751 W/kg

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

Reference Value = 26.33 V/m; Power Drift = -0.15 dB

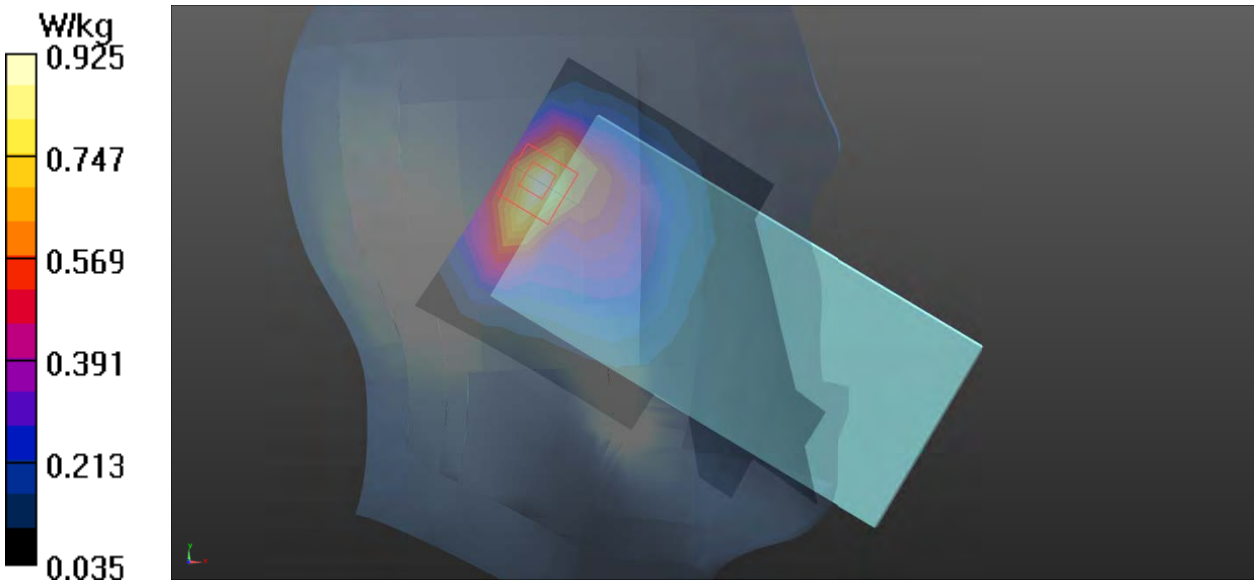
Peak SAR (extrapolated) = 1.19 W/kg

SAR(1 g) = 0.628 W/kg; SAR(10 g) = 0.355 W/kg

Smallest distance from peaks to all points 3 dB below = 11.5 mm

Ratio of SAR at M2 to SAR at M1 = 52.1%

Maximum value of SAR (measured) = 0.925 W/kg



Plot 57 NR Band n77 1RB Left Tilt High

Date: 2022/12/21

Communication System: UID 0, 5G NR (0); Frequency: 3930 MHz;Duty Cycle: 1:1

Medium parameters used (interpolated): f = 3930 MHz; σ = 3.283 S/m; ε_r = 37.409; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Left Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(6.58, 6.58, 6.58); Calibrated: 2022/7/8

Electronics: DAE4 SN1291; Calibrated: 2022/3/24

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

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

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

Maximum value of SAR (measured) = 0.723 W/kg

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

Reference Value = 6.353 V/m; Power Drift = 0.037 dB

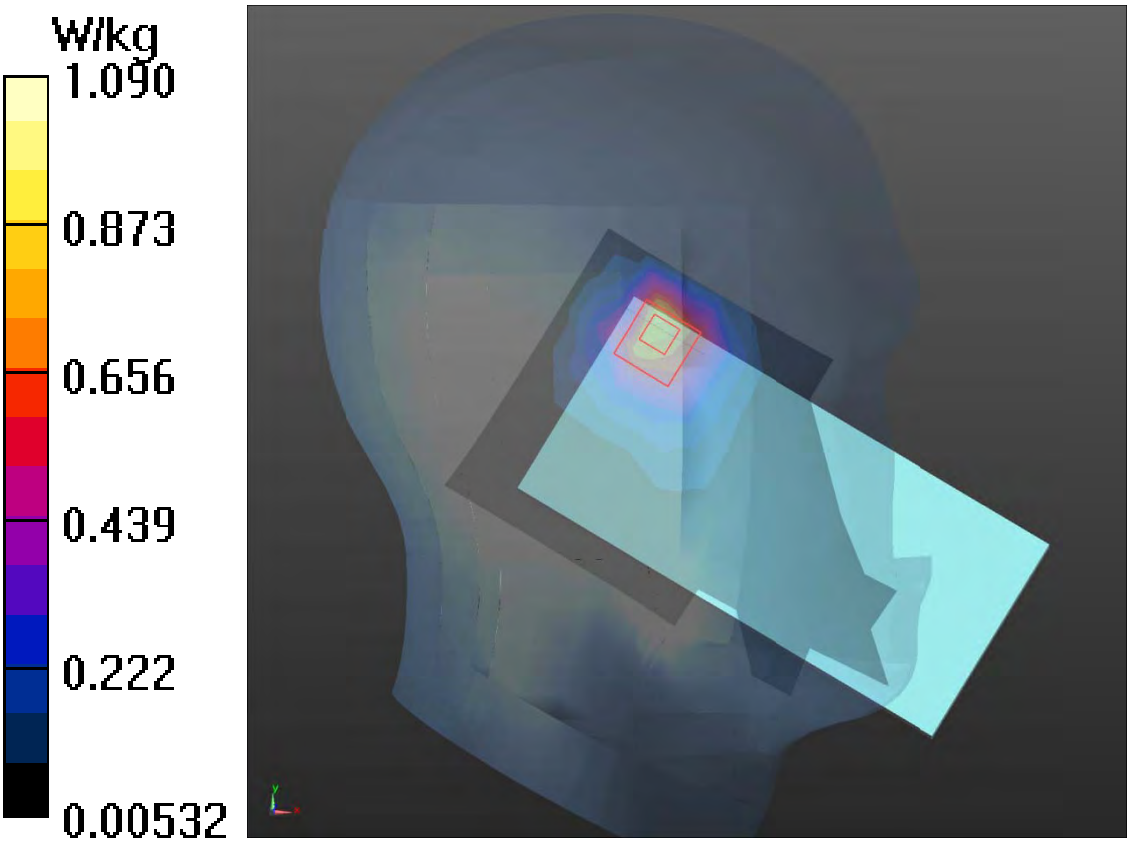
Peak SAR (extrapolated) = 1.85 W/kg

SAR(1 g) = 0.536 W/kg; SAR(10 g) = 0.179 W/kg

Smallest distance from peaks to all points 3 dB below = 6.4 mm

Ratio of SAR at M2 to SAR at M1 = 26.4%

Maximum value of SAR (measured) = 1.09 W/kg



Plot 58 LTE Band 5 1RB Left Cheek Middle (EN-DC)

Date: 2022/12/5

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

Medium parameters used (interpolated): f = 836.5 MHz; σ = 0.939 S/m; ε_r = 41.86; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Left Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(9.34, 9.34, 9.34); Calibrated: 2022/7/8

Electronics: DAE4 SN1291; Calibrated: 2022/3/24

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) = 0.410 W/kg

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

Reference Value = 18.54 V/m; Power Drift = -0.10 dB

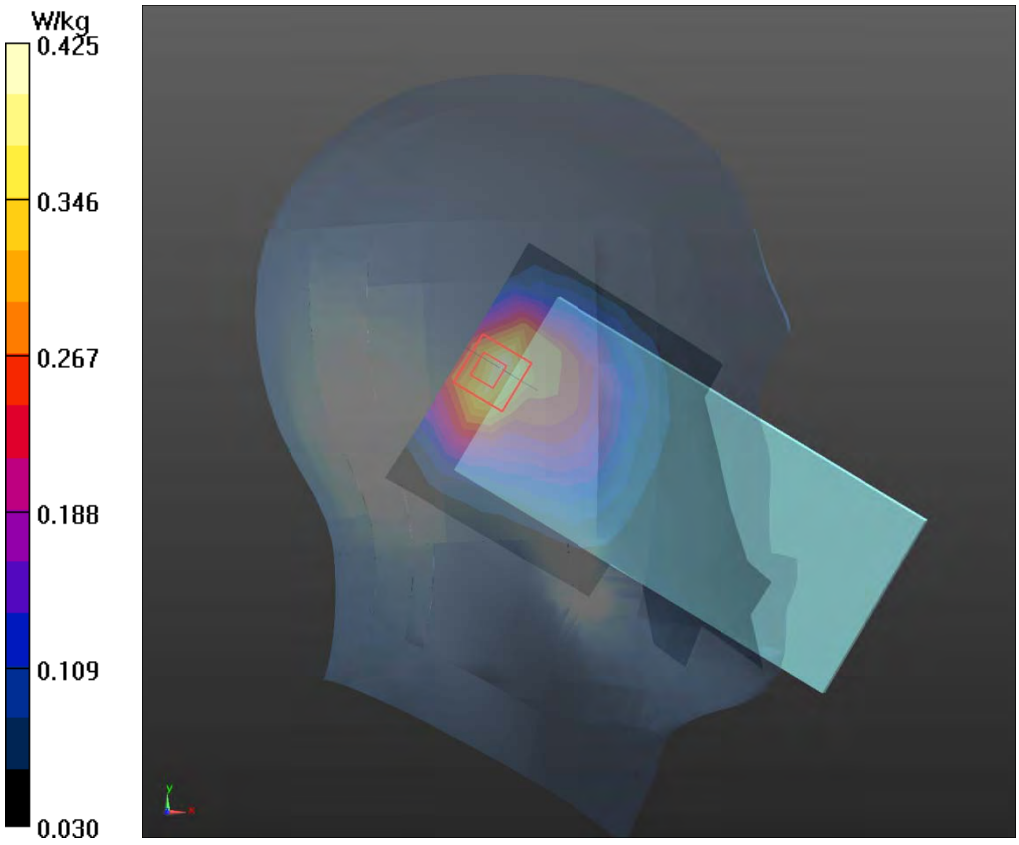
Peak SAR (extrapolated) = 0.720 W/kg

SAR(1 g) = 0.395 W/kg; SAR(10 g) = 0.234 W/kg

Smallest distance from peaks to all points 3 dB below = 14.4 mm

Ratio of SAR at M2 to SAR at M1 = 57.4%

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



Plot 59 LTE Band 12 50%RB Left Cheek Low (EN-DC)

Date: 2022/12/3

Communication System: UID 0, LTE (0); Frequency: 707.5 MHz;Duty Cycle: 1:1

Medium parameters used (interpolated): f = 707.5 MHz; σ = 0.895 S/m; ε_r = 42.214; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Left Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(9.63, 9.63, 9.63); Calibrated: 2022/7/8

Electronics: DAE4 SN1291; Calibrated: 2022/3/24

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) = 0.431 W/kg

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

Reference Value = 17.44 V/m; Power Drift = 0.11 dB

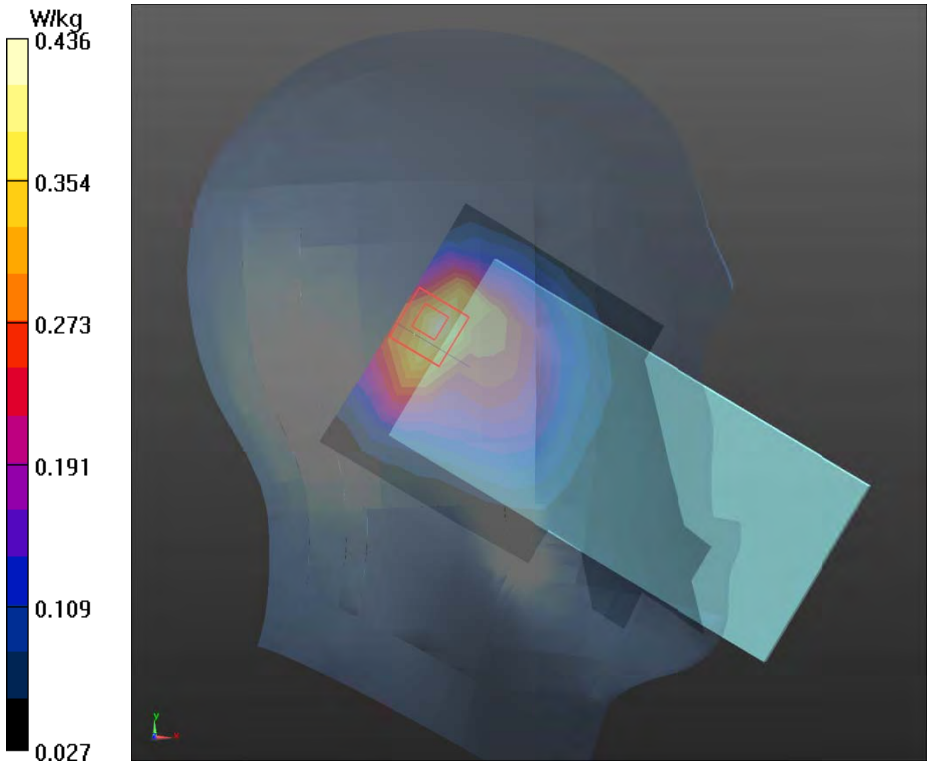
Peak SAR (extrapolated) = 0.771 W/kg

SAR(1 g) = 0.405 W/kg; SAR(10 g) = 0.235 W/kg

Smallest distance from peaks to all points 3 dB below = 13.6 mm

Ratio of SAR at M2 to SAR at M1 = 57.8%

Maximum value of SAR (measured) = 0.436 W/kg



Plot 60 LTE Band 13 1RB Left Cheek Low (EN-DC)

Date: 2022/12/5

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

Medium parameters used: f = 782 MHz; σ = 0.921 S/m; ε_r = 41.805; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Left Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(9.63, 9.63, 9.63); Calibrated: 2022/7/8

Electronics: DAE4 SN1291; Calibrated: 2022/3/24

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) = 0.419 W/kg

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

Reference Value = 16.31 V/m; Power Drift = 0.022 dB

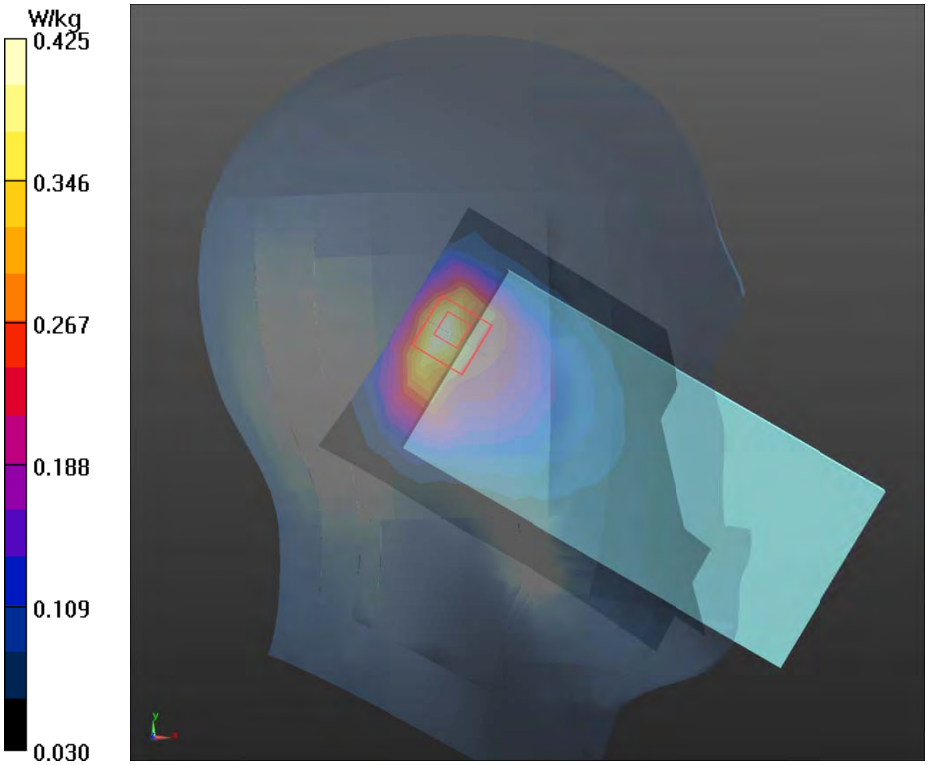
Peak SAR (extrapolated) = 0.745 W/kg

SAR(1 g) = 0.394 W/kg; SAR(10 g) = 0.228 W/kg

Smallest distance from peaks to all points 3 dB below = 14.5 mm

Ratio of SAR at M2 to SAR at M1 = 55%

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



Plot 61 802.11b Left Cheek Low

Date: 2022/12/21

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

Medium parameters used: f = 2412 MHz; σ = 1.79 S/m; ε_r = 38.573; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Left Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.46, 7.46, 7.46); Calibrated: 2022/7/8

Electronics: DAE4 SN1291; Calibrated: 2022/3/24

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) = 1.12 W/kg

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

Reference Value = 12.42 V/m; Power Drift = 0.021 dB

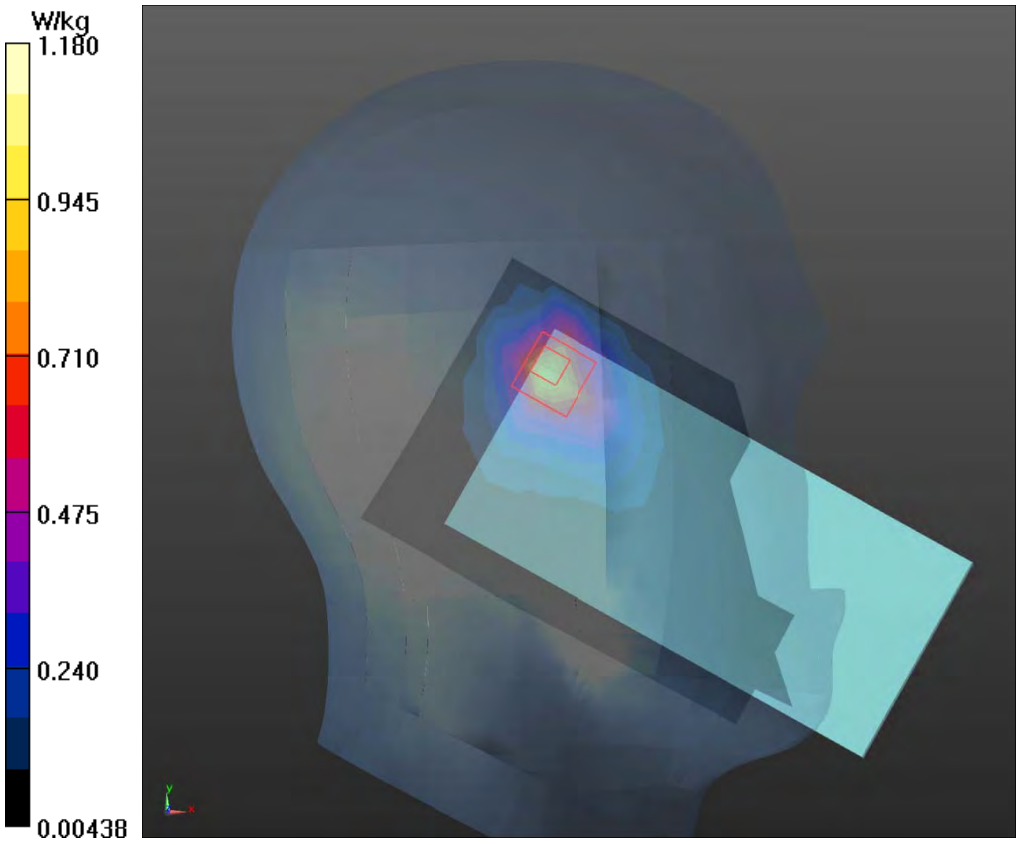
Peak SAR (extrapolated) = 2.05 W/kg

SAR(1 g) = 1.03 W/kg; SAR(10 g) = 0.499 W/kg

Smallest distance from peaks to all points 3 dB below = 9.7 mm

Ratio of SAR at M2 to SAR at M1 = 56.7%

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



Plot 62 802.11a U-NII-3 Left Tilt Low

Date: 2022/12/9

Communication System: UID 0, 802.11a (6m); Frequency: 5745 MHz;Duty Cycle: 1:1

Medium parameters used: f = 5745 MHz; σ = 4.96 S/m; ε_r = 35.27; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Left Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(5.00, 5.00, 5.00); Calibrated: 2022/7/8

Electronics: DAE4 SN1291; Calibrated: 2022/3/24

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

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

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

Maximum value of SAR (measured) = 0.349 W/kg

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

Reference Value = 0.9560 V/m; Power Drift = 0.038 dB

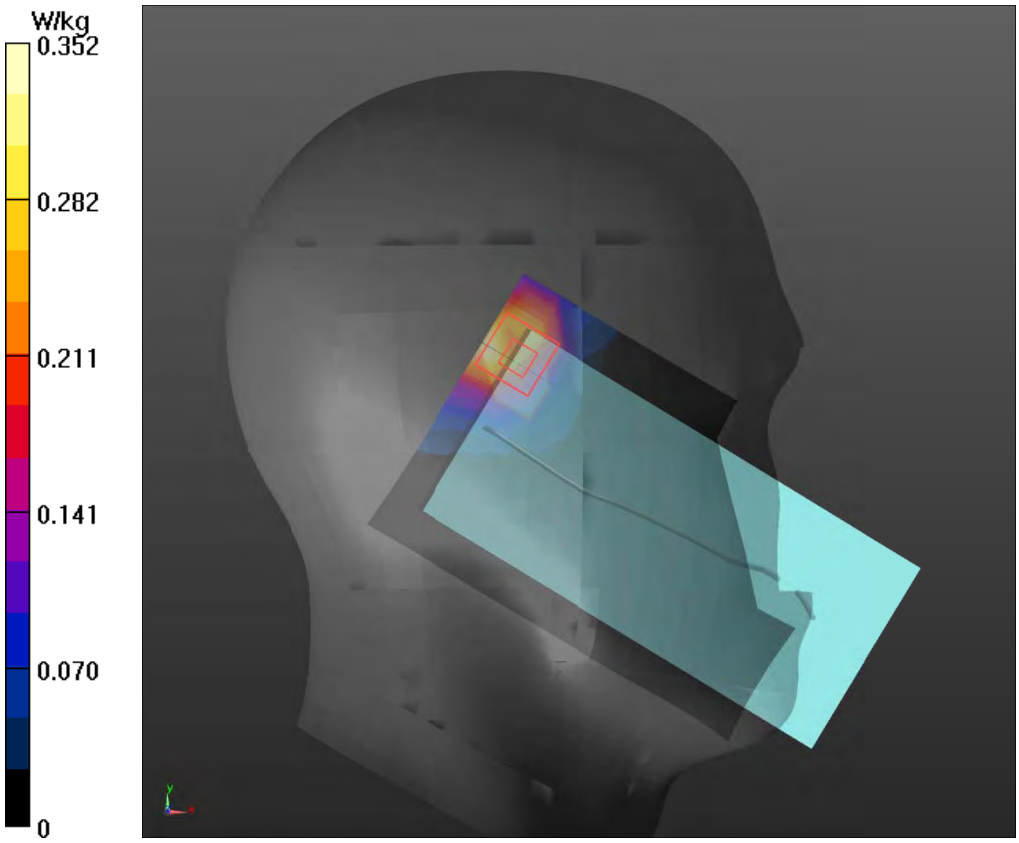
Peak SAR (extrapolated) = 0.605 W/kg

SAR(1 g) = 0.319 W/kg; SAR(10 g) = 0.090 W/kg

Smallest distance from peaks to all points 3 dB below = 8.6 mm

Ratio of SAR at M2 to SAR at M1 = 36.8%

Maximum value of SAR (measured) = 0.352 W/kg



Plot 63 Bluetooth Left Cheek High

Date: 2022/12/21

Communication System: UID 0, BT (0); Frequency: 2480 MHz;Duty Cycle: 1:1.3

Medium parameters used: f = 2480 MHz; σ = 1.868 S/m; ε_r = 38.356; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Left Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.46, 7.46, 7.46); Calibrated: 2022/7/8

Electronics: DAE4 SN1291; Calibrated: 2022/3/24

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

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

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

Maximum value of SAR (measured) = 0.086 W/kg

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

Reference Value = 2.227 V/m; Power Drift = 0.025 dB

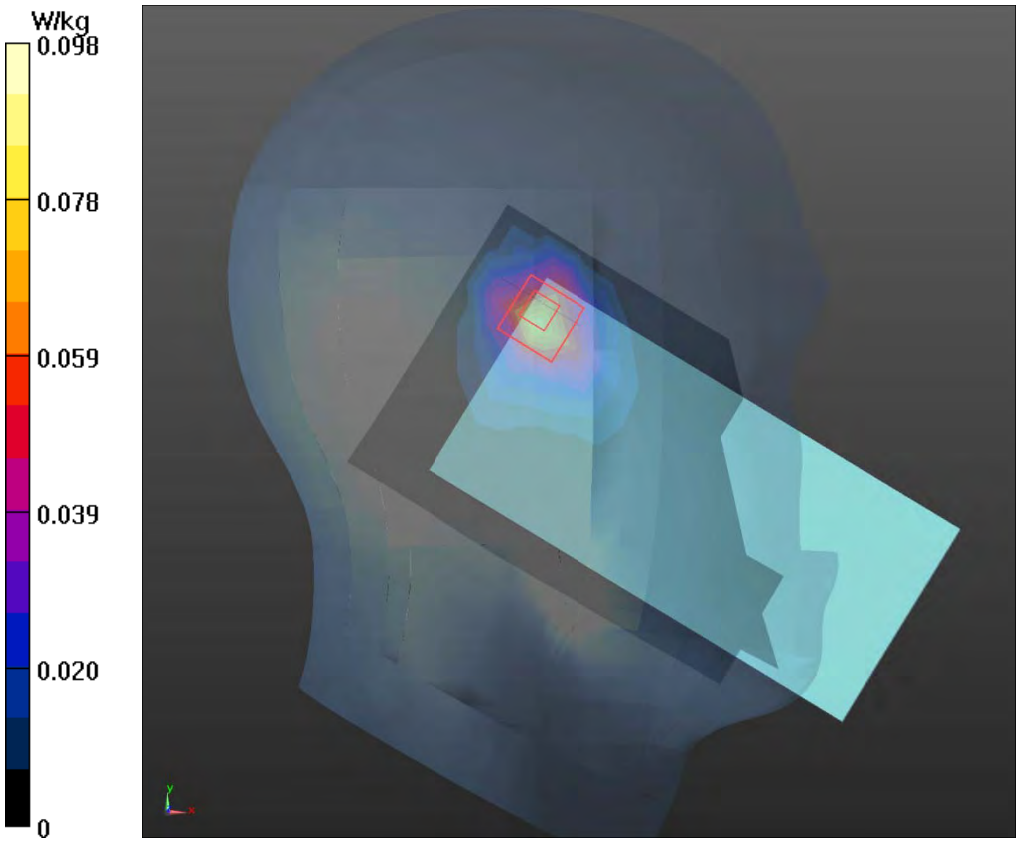
Peak SAR (extrapolated) = 0.125 W/kg

SAR(1 g) = 0.076 W/kg; SAR(10 g) = 0.034 W/kg

Smallest distance from peaks to all points 3 dB below =8.1 mm

Ratio of SAR at M2 to SAR at M1 = 44.4%

Maximum value of SAR (measured) = 0.098 W/kg



Plot 64 GSM 850 Back Side Middle (Distance 15mm)

Date: 2022/12/22

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

Medium parameters used: f = 836.6 MHz; σ = 0.939 S/m; ε_r = 41.856; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(9.34, 9.34, 9.34); Calibrated: 2022/7/8

Electronics: DAE4 SN1291; Calibrated: 2022/3/24

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) = 0.245 W/kg

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

Reference Value = 14.58 V/m; Power Drift = -0.07 dB

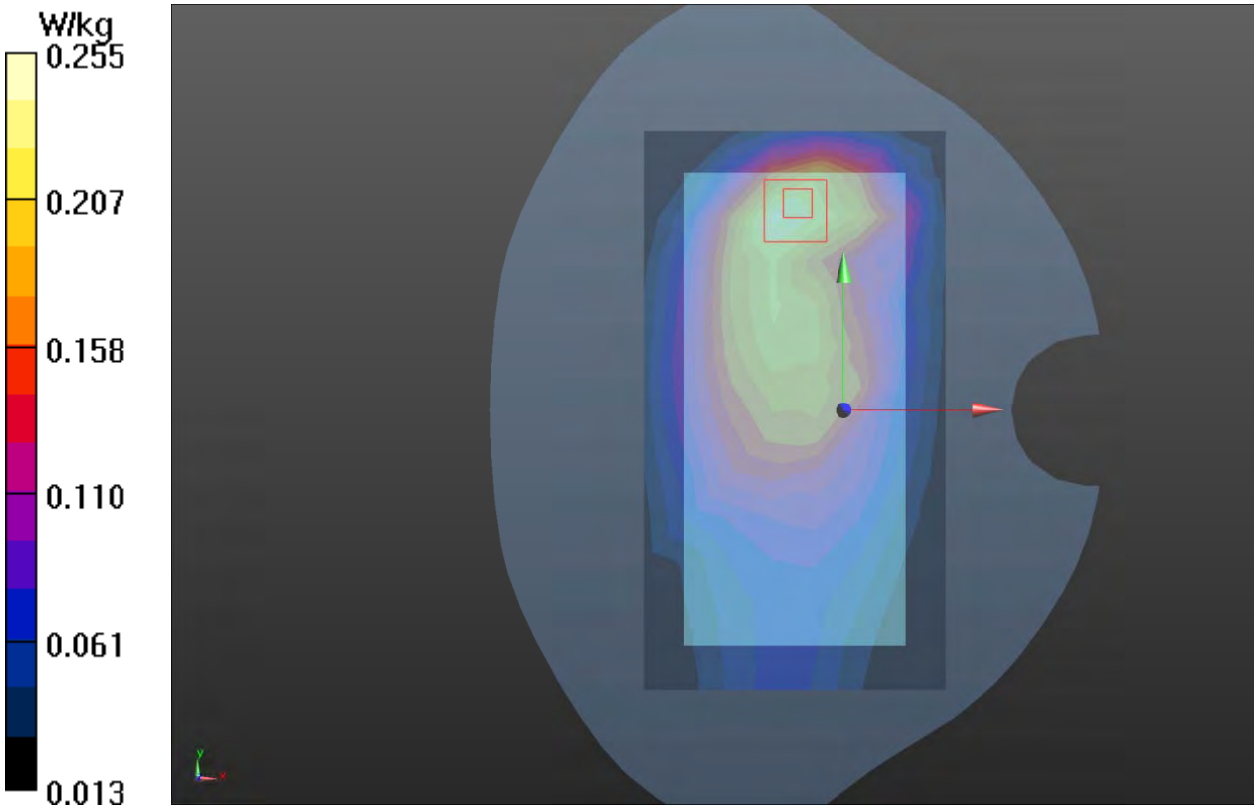
Peak SAR (extrapolated) = 0.492 W/kg

SAR(1 g) = 0.219 W/kg; SAR(10 g) = 0.134 W/kg

Smallest distance from peaks to all points 3 dB below = 17.3 mm

Ratio of SAR at M2 to SAR at M1 = 63.1%

Maximum value of SAR (measured) = 0.255 W/kg



Plot 65 GSM 1900 Back Side Middle (Distance 15mm)

Date: 2022/12/4

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

Medium parameters used: f = 1880 MHz; σ = 1.406 S/m; ε_r = 39.087; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.84, 7.84, 7.84); Calibrated: 2022/7/8

Electronics: DAE4 SN1291; Calibrated: 2022/3/24

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) = 0.239 W/kg

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

Reference Value = 9.726 V/m; Power Drift = -0.18 dB

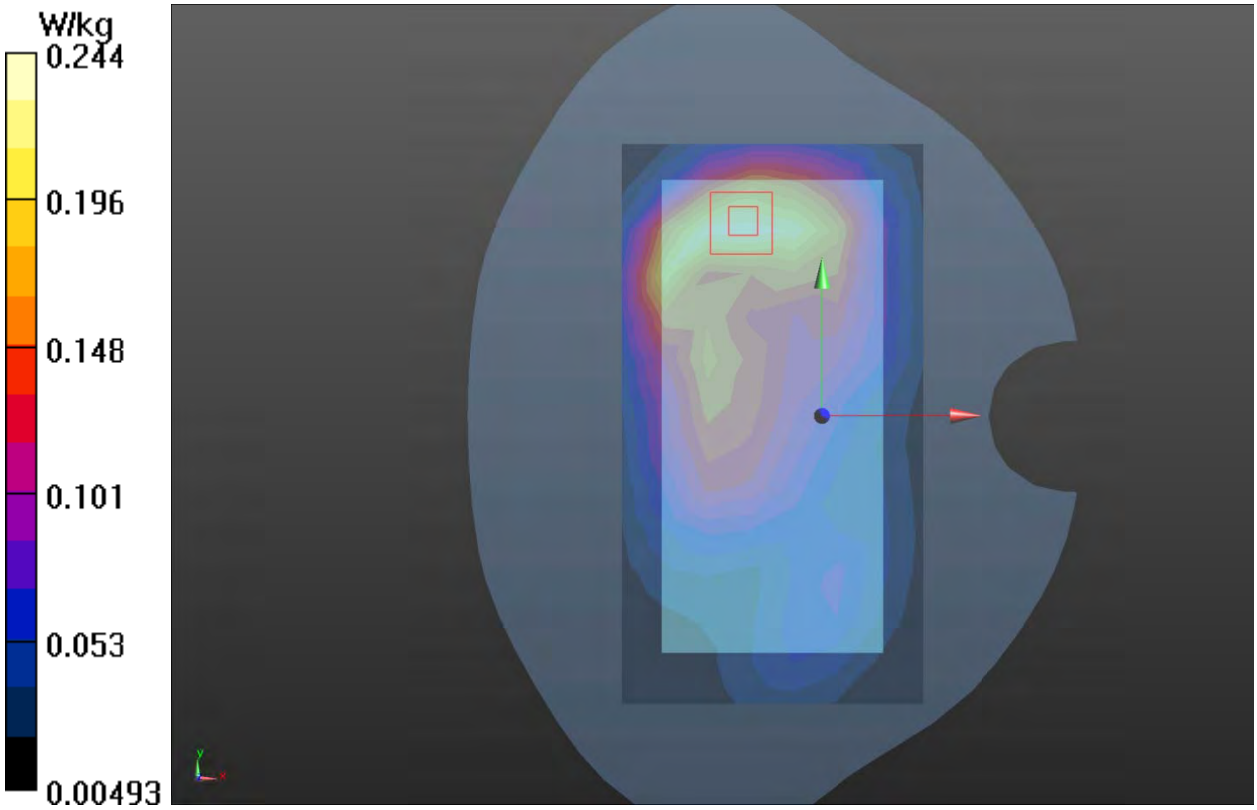
Peak SAR (extrapolated) = 0.391 W/kg

SAR(1 g) = 0.227 W/kg; SAR(10 g) = 0.136 W/kg

Smallest distance from peaks to all points 3 dB below = 17 mm

Ratio of SAR at M2 to SAR at M1 = 56.6%

Maximum value of SAR (measured) = 0.244 W/kg



Plot 66 WCDMA Band II Back Side Middle (Distance 15mm)

Date: 2022/12/4

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

Medium parameters used: f = 1880 MHz; σ = 1.406 S/m; ε_r = 39.087; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.84, 7.84, 7.84); Calibrated: 2022/7/8

Electronics: DAE4 SN1291; Calibrated: 2022/3/24

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) = 0.452 W/kg

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

Reference Value = 10.77 V/m; Power Drift = 0.10 dB

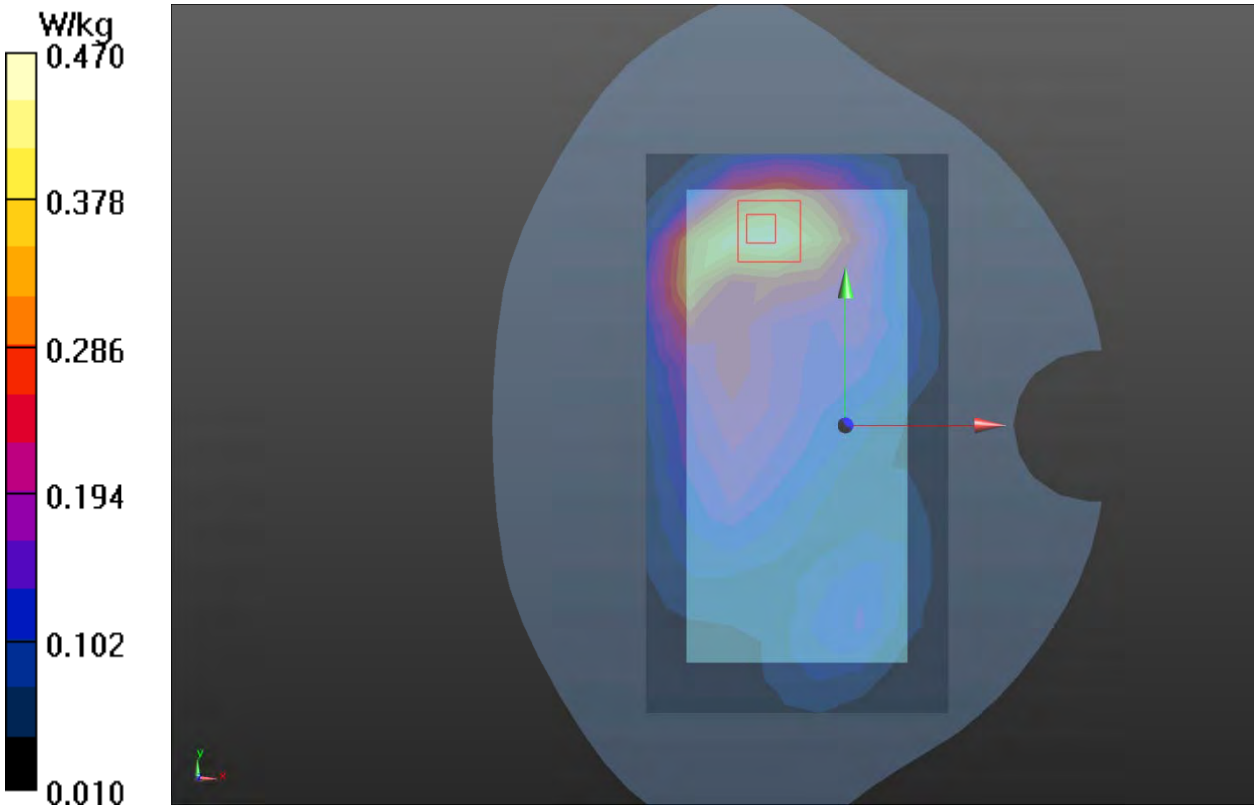
Peak SAR (extrapolated) = 0.821 W/kg

SAR(1 g) = 0.433 W/kg; SAR(10 g) = 0.259 W/kg

Smallest distance from peaks to all points 3 dB below = 17.9 mm

Ratio of SAR at M2 to SAR at M1 = 60.4%

Maximum value of SAR (measured) = 0.470 W/kg



Plot 67 WCDMA Band IV Back Side Middle (Distance 15mm)

Date: 2022/12/17

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

Medium parameters used: f = 1732.6 MHz; σ = 1.301 S/m; ε_r = 39.491; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(8.25, 8.25, 8.25); Calibrated: 2022/7/8

Electronics: DAE4 SN1291; Calibrated: 2022/3/24

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) = 0.251 W/kg

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

Reference Value = 8.657 V/m; Power Drift = 0.09 dB

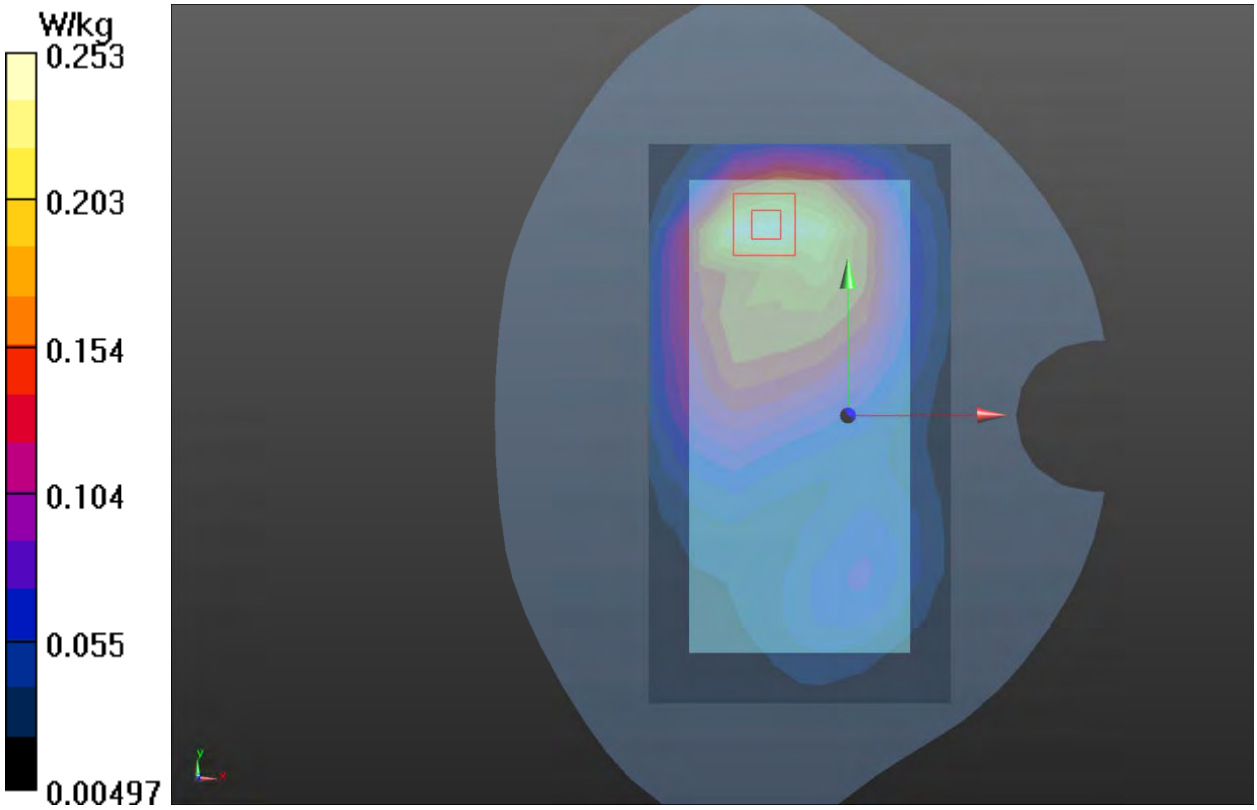
Peak SAR (extrapolated) = 0.394 W/kg

SAR(1 g) = 0.237 W/kg; SAR(10 g) = 0.145 W/kg

Smallest distance from peaks to all points 3 dB below = 18.1 mm

Ratio of SAR at M2 to SAR at M1 = 62.5%

Maximum value of SAR (measured) = 0.253 W/kg



Plot 68 WCDMA Band V Back Side Middle (Distance 15mm)

Date: 2022/12/22

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

Medium parameters used: f = 836.6 MHz; σ = 0.939 S/m; ε_r = 41.856; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(9.34, 9.34, 9.34); Calibrated: 2022/7/8

Electronics: DAE4 SN1291; Calibrated: 2022/3/24

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) = 0.099 W/kg

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

Reference Value = 6.793 V/m; Power Drift = 0.042 dB

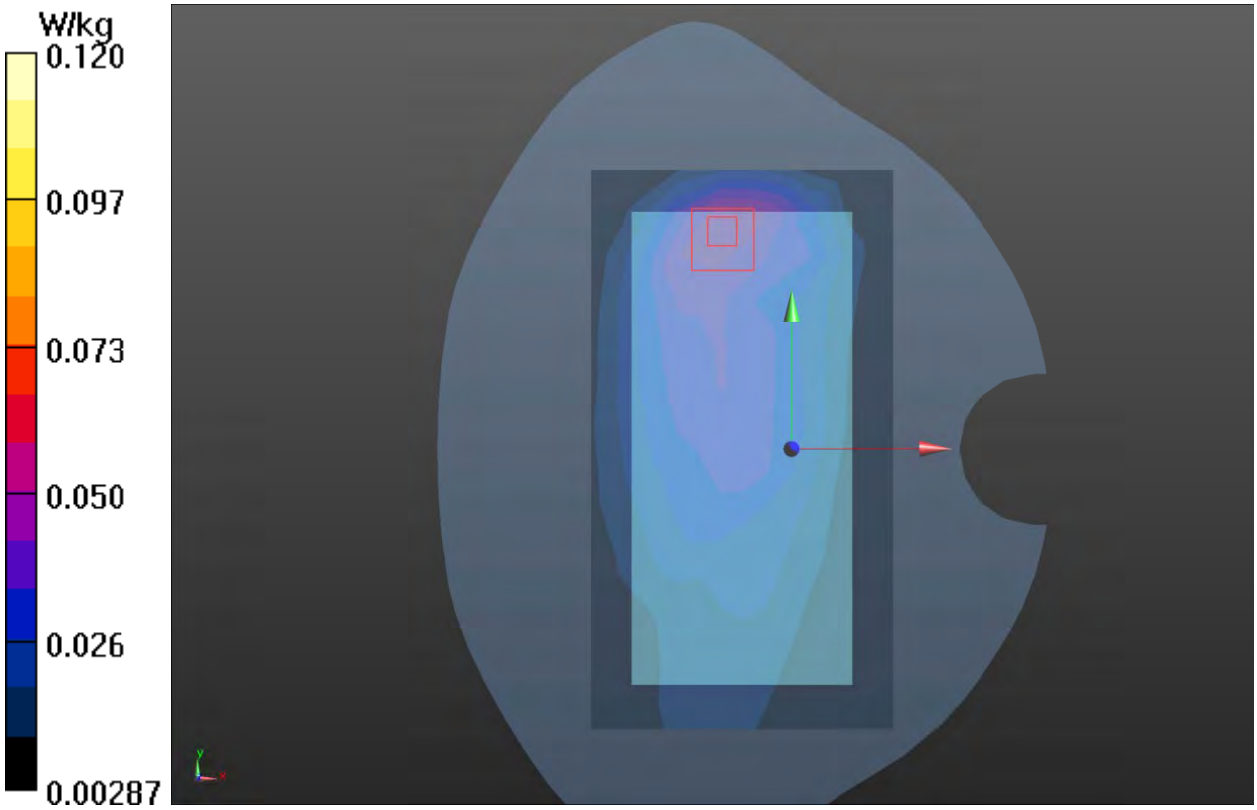
Peak SAR (extrapolated) = 0.21W/kg

SAR(1 g) = 0.096 W/kg; SAR(10 g) = 0.059 W/kg

Smallest distance from peaks to all points 3 dB below = 13 mm

Ratio of SAR at M2 to SAR at M1 = 62.7%

Maximum value of SAR (measured) = 0.120 W/kg



Plot 69 LTE Band 2 1RB Back Side Middle (Distance 15mm)

Date: 2022/12/6

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

Medium parameters used: f = 1880 MHz; σ = 1.406 S/m; ε_r = 39.087; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.84, 7.84, 7.84); Calibrated: 2022/7/8

Electronics: DAE4 SN1291; Calibrated: 2022/3/24

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) = 0.400 W/kg

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

Reference Value = 10.93 V/m; Power Drift = 0.16 dB

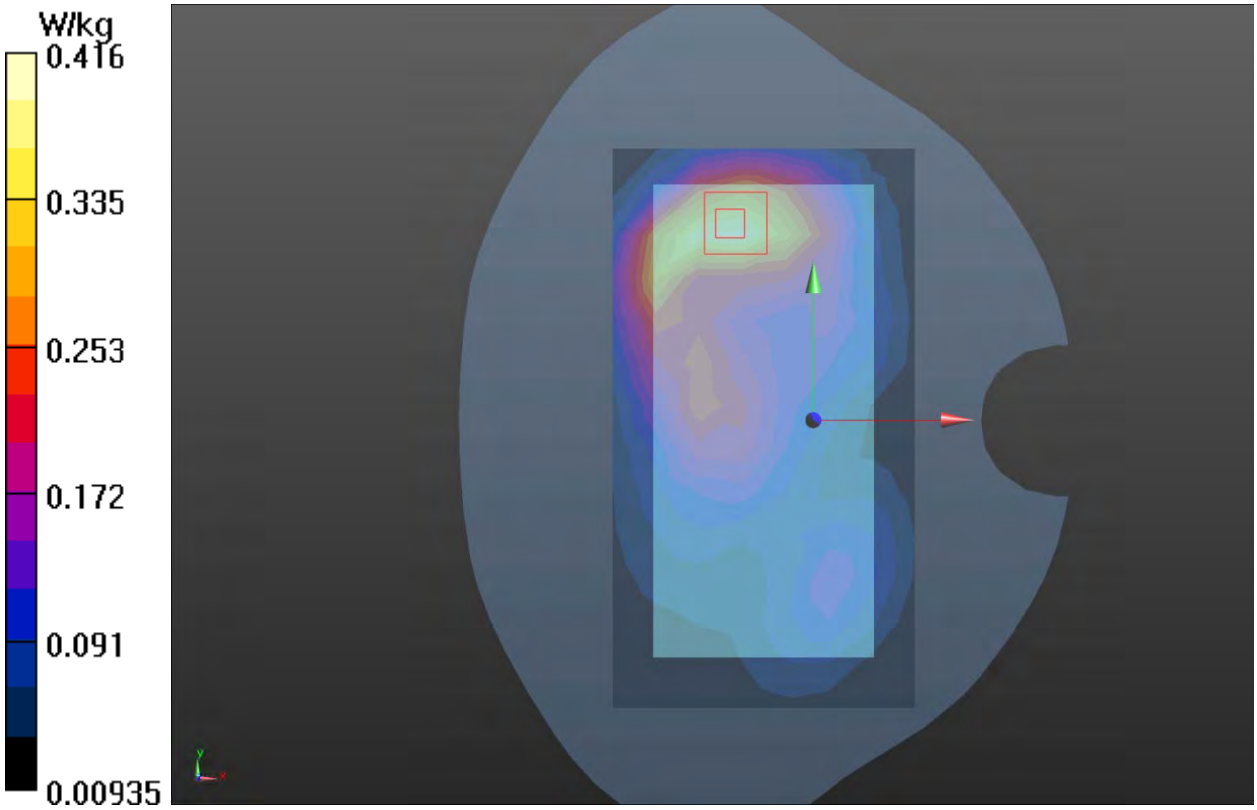
Peak SAR (extrapolated) = 0.637 W/kg

SAR(1 g) = 0.384 W/kg; SAR(10 g) = 0.229 W/kg

Smallest distance from peaks to all points 3 dB below = 18.7 mm

Ratio of SAR at M2 to SAR at M1 = 60.3%

Maximum value of SAR (measured) = 0.416 W/kg



Plot 70 LTE Band 4 1RB Back Side Low (Distance 15mm)

Date: 2022/12/18

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

Medium parameters used: f = 1720 MHz; σ = 1.294 S/m; ε_r = 39.556; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(8.25, 8.25, 8.25); Calibrated: 2022/7/8

Electronics: DAE4 SN1291; Calibrated: 2022/3/24

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 (8x14x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.221 W/kg

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

Reference Value = 8.948 V/m; Power Drift = -0.10 dB

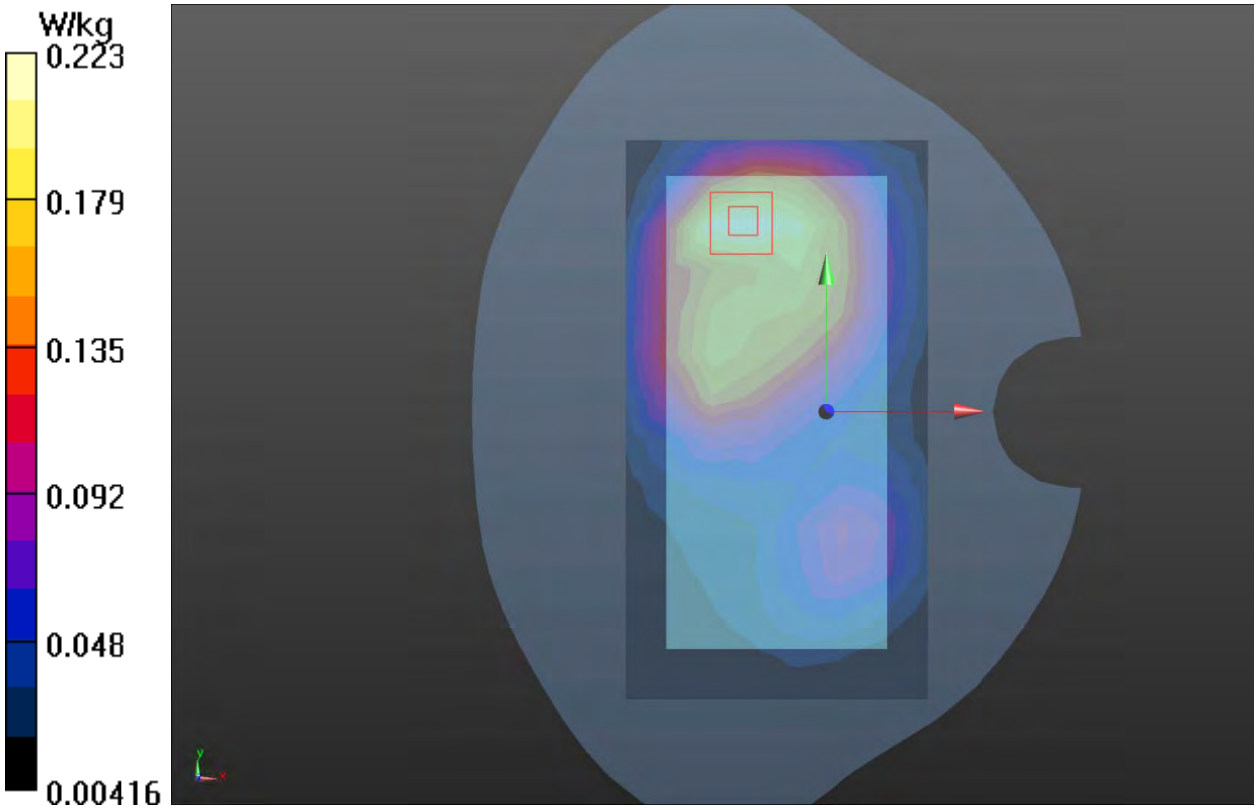
Peak SAR (extrapolated) = 0.419 W/kg

SAR(1 g) = 0.208 W/kg; SAR(10 g) = 0.129 W/kg

Smallest distance from peaks to all points 3 dB below = 18.1 mm

Ratio of SAR at M2 to SAR at M1 = 63.1%

Maximum value of SAR (measured) = 0.223 W/kg



Plot 71 LTE Band 5 1RB Back Side Middle (Distance 15mm)

Date: 2022/12/5

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

Medium parameters used (interpolated): f = 836.5 MHz; σ = 0.939 S/m; ε_r = 41.86; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(9.34, 9.34, 9.34); Calibrated: 2022/7/8

Electronics: DAE4 SN1291; Calibrated: 2022/3/24

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) = 0.261 W/kg

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

Reference Value = 15.25 V/m; Power Drift = 0.13 dB

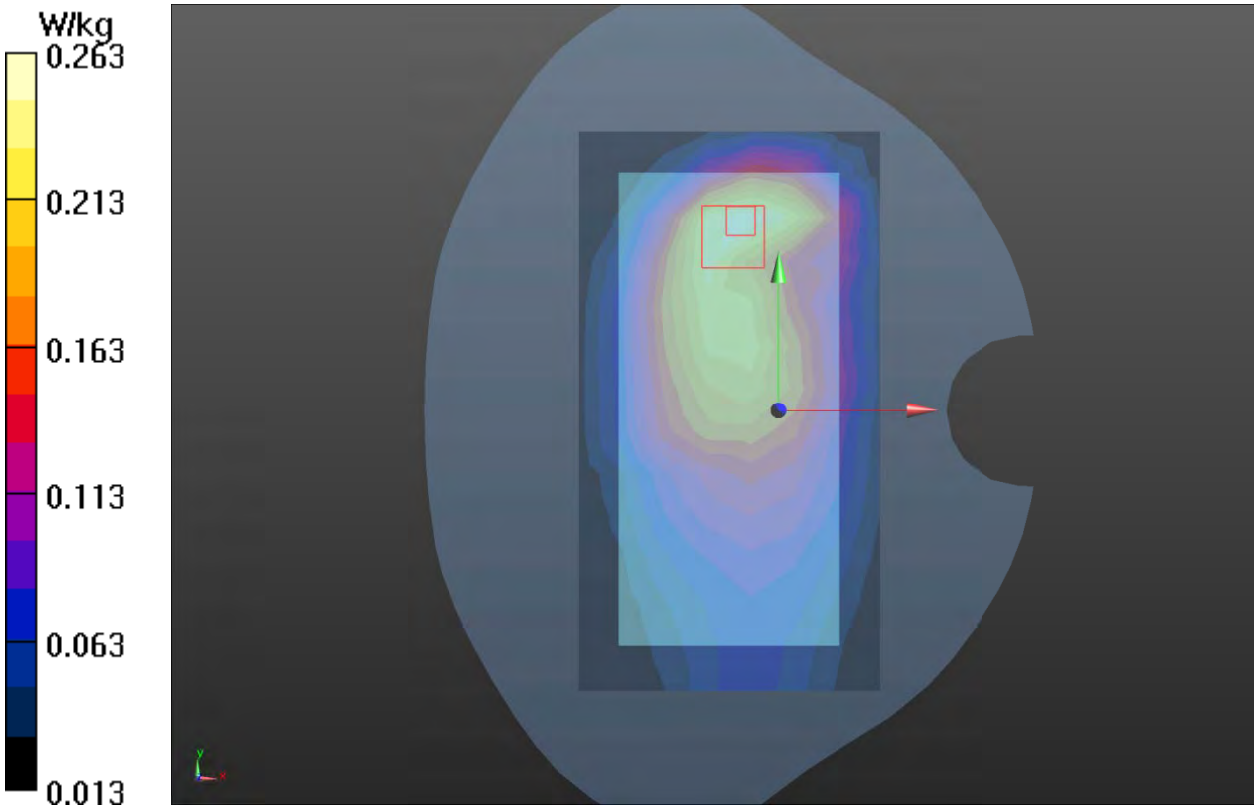
Peak SAR (extrapolated) = 0.304 W/kg

SAR(1 g) = 0.194 W/kg; SAR(10 g) = 0.127 W/kg

Smallest distance from peaks to all points 3 dB below = 17 mm

Ratio of SAR at M2 to SAR at M1 = 62.5%

Maximum value of SAR (measured) = 0.263 W/kg



Plot 72 LTE Band 7 1RB Back Side Middle (Distance 15mm)

Date: 2022/12/7

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

Medium parameters used: f = 2535 MHz; σ = 1.924 S/m; ε_r = 38.136; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.27, 7.27, 7.27); Calibrated: 2022/7/8

Electronics: DAE4 SN1291; Calibrated: 2022/3/24

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 (10x18x1): Measurement grid: dx=12mm, dy=12mm

Maximum value of SAR (measured) = 0.330 W/kg

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

Reference Value = 2.664 V/m; Power Drift = 0.15 dB

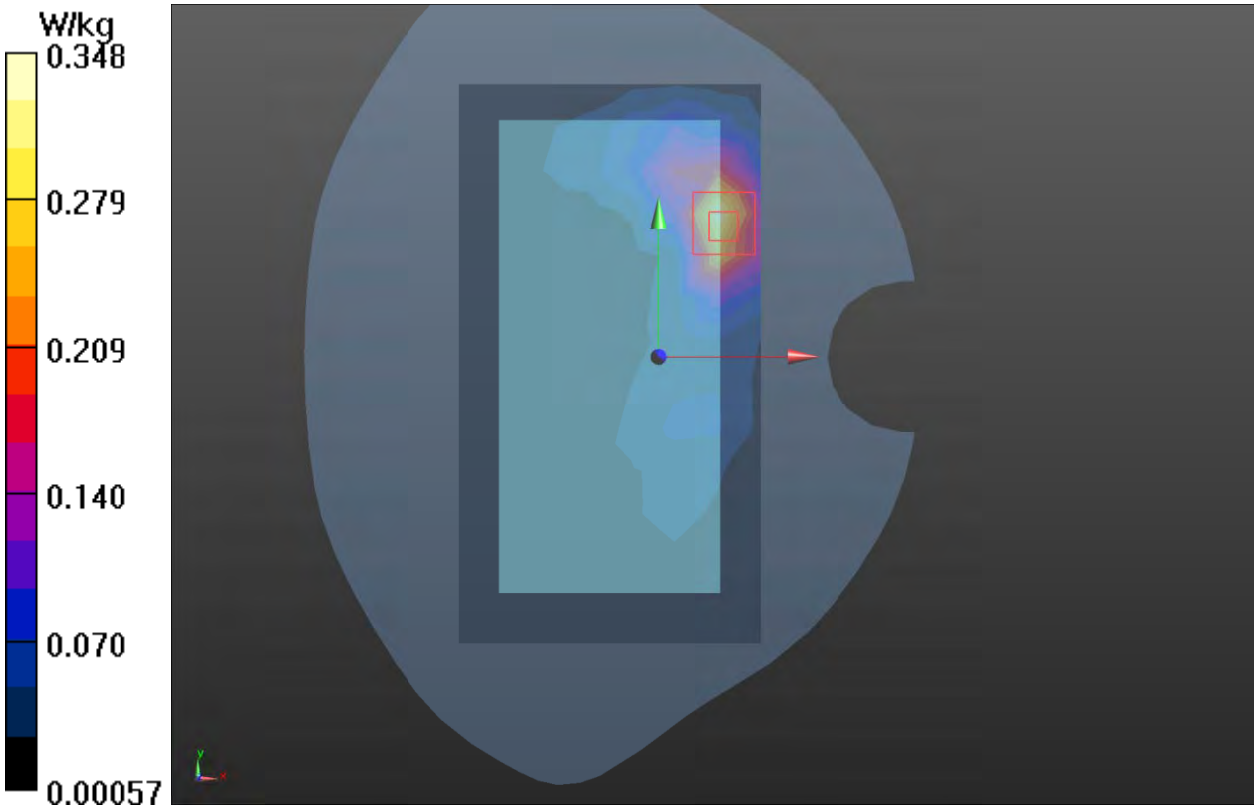
Peak SAR (extrapolated) = 0.622 W/kg

SAR(1 g) = 0.311 W/kg; SAR(10 g) = 0.153 W/kg

Smallest distance from peaks to all points 3 dB below = 11.6 mm

Ratio of SAR at M2 to SAR at M1 = 51.2%

Maximum value of SAR (measured) = 0.348 W/kg



Plot 73 LTE Band 12 1RB Back Side High (Distance 15mm)

Date: 2022/12/3

Communication System: UID 0, LTE (0); Frequency: 711 MHz;Duty Cycle: 1:1

Medium parameters used: f = 711 MHz; σ = 0.896 S/m; ε_r = 42.2; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(9.63, 9.63, 9.63); Calibrated: 2022/7/8

Electronics: DAE4 SN1291; Calibrated: 2022/3/24

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) = 0.213 W/kg

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

Reference Value = 13.92 V/m; Power Drift = -0.071 dB

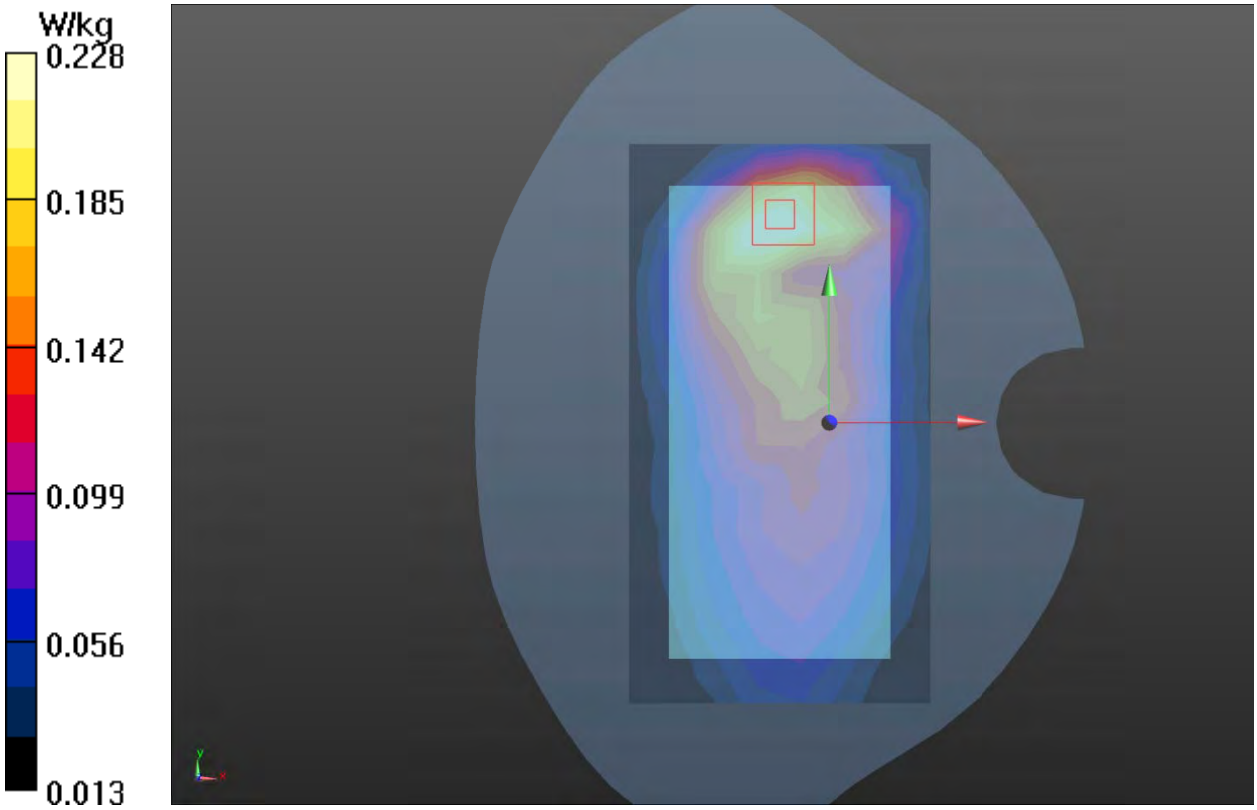
Peak SAR (extrapolated) = 0.273 W/kg

SAR(1 g) = 0.167 W/kg; SAR(10 g) = 0.104 W/kg

Smallest distance from peaks to all points 3 dB below = 16.5 mm

Ratio of SAR at M2 to SAR at M1 = 63.1%

Maximum value of SAR (measured) = 0.228 W/kg



Plot 74 LTE Band 13 1RB Back Side Middle (Distance 15mm)

Date: 2022/12/3

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

Medium parameters used: f = 782 MHz; σ = 0.921 S/m; ε_r = 41.805; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(9.63, 9.63, 9.63); Calibrated: 2022/7/8

Electronics: DAE4 SN1291; Calibrated: 2022/3/24

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) = 0.264 W/kg

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

Reference Value = 13.20 V/m; Power Drift = -0.04 dB

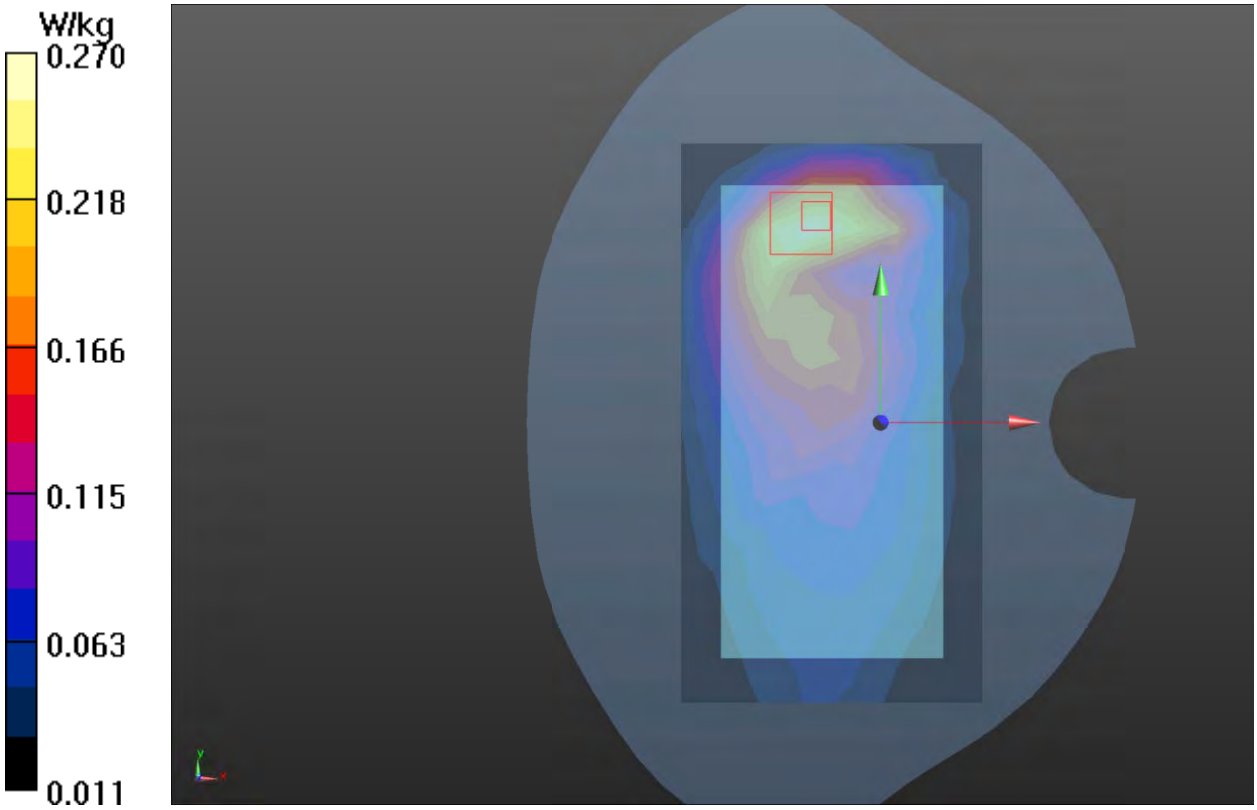
Peak SAR (extrapolated) = 0.416 W/kg

SAR(1 g) = 0.213 W/kg; SAR(10 g) = 0.131 W/kg

Smallest distance from peaks to all points 3 dB below = 14.3 mm

Ratio of SAR at M2 to SAR at M1 = 63.3%

Maximum value of SAR (measured) = 0.270 W/kg



Plot 75 LTE Band 25 1RB Back Side High (Distance 15mm)

Date: 2022/12/6

Communication System: UID 0, LTE (0); Frequency: 1905 MHz;Duty Cycle: 1:1

Medium parameters used: f = 1905 MHz; σ = 1.426 S/m; ε_r = 39.034; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.84, 7.84, 7.84); Calibrated: 2022/7/8

Electronics: DAE4 SN1291; Calibrated: 2022/3/24

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) = 0.303 W/kg

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

Reference Value = 8.540 V/m; Power Drift = 0.16 dB

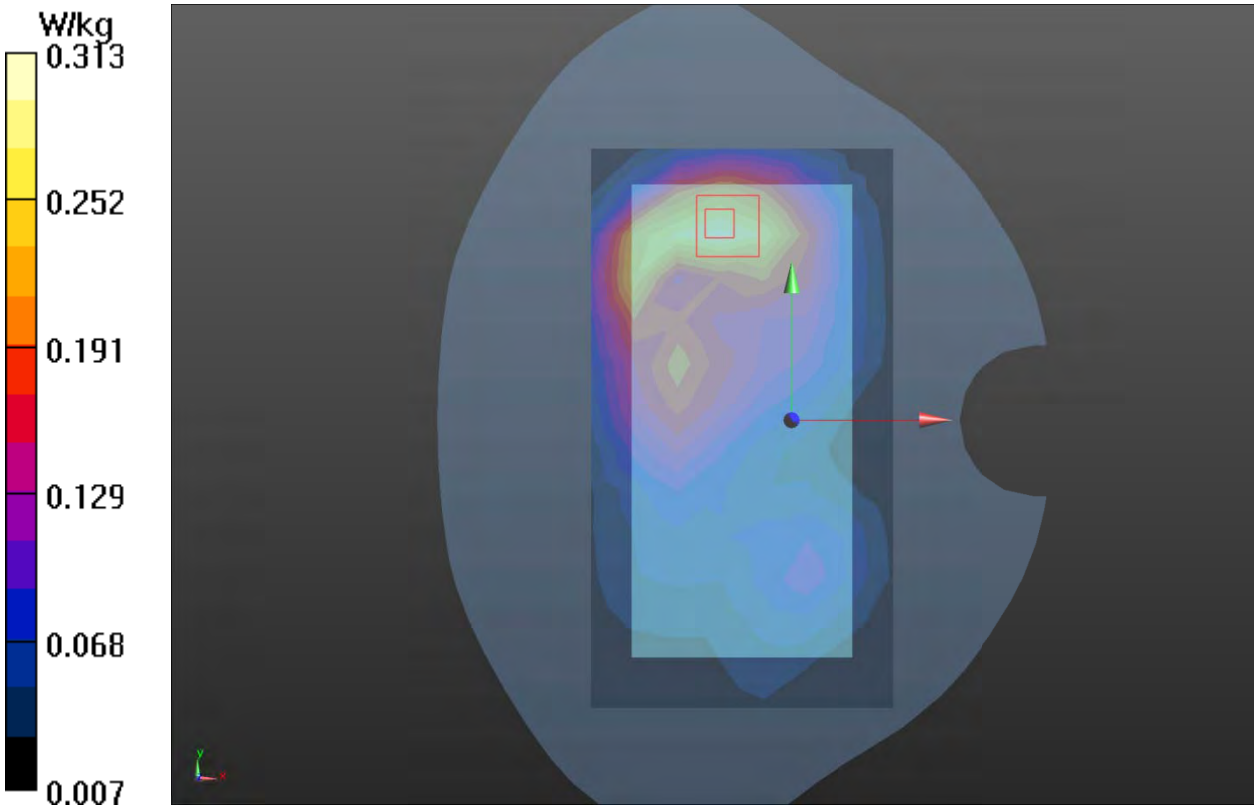
Peak SAR (extrapolated) = 0.472 W/kg

SAR(1 g) = 0.289 W/kg; SAR(10 g) = 0.174 W/kg

Smallest distance from peaks to all points 3 dB below = 19.5 mm

Ratio of SAR at M2 to SAR at M1 = 61.9%

Maximum value of SAR (measured) = 0.313 W/kg



Plot 76 LTE Band 26 1RB Back Side Middle (Distance 15mm)

Date: 2022/12/5

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

Medium parameters used (interpolated): f = 831.5 MHz; σ = 0.937 S/m; ε_r = 41.874; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(9.34, 9.34, 9.34); Calibrated: 2022/7/8

Electronics: DAE4 SN1291; Calibrated: 2022/3/24

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) = 0.259 W/kg

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

Reference Value = 12.83 V/m; Power Drift = 0.15 dB

Peak SAR (extrapolated) = 0.407 W/kg

SAR(1 g) = 0.212 W/kg; SAR(10 g) = 0.141 W/kg

Smallest distance from peaks to all points 3 dB below = 16.5 mm

Ratio of SAR at M2 to SAR at M1 = 63.2%

Maximum value of SAR (measured) = 0.267 W/kg