



SAR TEST REPORT

Applicant Huawei Technologies Co., Ltd.
FCC ID QISVOG-L04M
Product Smart Phone
Brand HUAWEI
Model VOG-L04m
Report No. R1904H0073-S1
Issue Date May 14, 2019

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

CNAS (accreditation number:L2264)

TA Technology (Shanghai) Co., Ltd. has obtained the accreditation of China National Accreditation Service for Conformity Assessment (CNAS).

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

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

IC (recognition number is 8510A)

TA Technology (Shanghai) Co., Ltd. has been listed by industry Canada to perform electromagnetic emission measurement.

VCCI (recognition number is C-4595, T-2154, R-4113, G-10766)

TA Technology (Shanghai) Co., Ltd. has been listed by industry Japan to perform electromagnetic emission measurement.

A2LA(Certificate Number: 3857.01)

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

1.3 Testing Location

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1.4 Laboratory Environment

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

2 Statement of Compliance

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

Table 1: Highest Reported SAR

Mode	Highest Reported SAR (W/kg)			
	1g SAR Head	1g SAR Body-worn (Separation 15mm)	1g SAR Hotspot (Separation 10mm)	Product Specific 10-g SAR (Separation 0mm)
GSM 850	0.53	0.18	0.39	NA
GSM 1900	0.49	0.15	0.66	NA
WCDMA Band II	0.71	0.51	0.74	NA
WCDMA Band IV	0.73	0.41	0.53	NA
WCDMA Band V	0.53	0.31	0.60	NA
LTE FDD 2	0.62	0.39	0.52	NA
LTE FDD 4	0.55	0.28	0.48	NA
LTE FDD 5	0.38	0.24	0.41	NA
LTE FDD 7	0.76	0.43	0.47	NA
LTE FDD 12	0.48	0.27	0.40	NA
LTE FDD 17	0.56	0.21	0.37	NA
LTE FDD 26	0.45	0.26	0.41	NA
LTE TDD 38	0.36	0.25	0.27	NA
LTE TDD 41	0.43	0.18	0.43	NA
LTE FDD 66	0.48	0.23	0.38	NA
Wi-Fi (2.4G)	0.36	0.12	0.29	1.11
Wi-Fi (5G)	0.52	<0.10	0.26	0.77
BT	0.19	<0.10	0.39	0.56
Date of Testing:	April 13, 2019~ May 2, 2019			

Note: 1) The highest Reported SAR for head, body-worn, hotspot, Product Specific 10-g SAR and simultaneous transmission exposure conditions are 0.76 W/kg, 0.51 W/kg, 0.74 W/kg, 1.11 W/kg and 1.56W/kg.

2) Stand-alone SAR evaluation is not required for BT normal (Product Specific 10-g SAR), more details information see section 10.2

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

The device is in compliance with Specific Absorption Rate (SAR) for general population/uncontrolled exposure limits according to the FCC rule § 2.1093, the ANSI C95.1: 1992/IEEE C95.1: 1991, and had been tested in accordance with the measurement methods and procedures specified in IEEE Std 1528-2013.

3 Description of Equipment under Test

Client Information

Applicant	Huawei Technologies Co., Ltd.
Applicant address	Administration Building, Headquarters of Huawei Technologies Co., Ltd., Bantian, Longgang District, Shenzhen, 518129, P.R.China.
Manufacturer	Huawei Technologies Co., Ltd.
Manufacturer address	Administration Building, Headquarters of Huawei Technologies Co., Ltd., Bantian, Longgang District, Shenzhen, 518129, P.R.China.

General Technologies

Application Purpose:	Original Grant
EUT Stage:	Identical Prototype
Model:	VOG-L04m
IMEI:	NCF0119402000089 (Battery 1) NCF0119402000098 (Battery 2)
Hardware Version:	HL5VOGUEM
Software Version:	9.1.0.130(SP3C792E1R1P5)
Antenna Type:	Internal Antenna
Device Class:	B
Wi-Fi Hotspot:	Wi-Fi 2.4G Wi-Fi 5G U-NII-1&U-NII-3
Power Class:	GSM 850:4 GSM 1900:1 UMTS Band II/IV/V:3 LTE FDD 2/4/5/7/12/17/26/66:3 LTE TDD 38/41:3
Power Level:	GSM 850:level 5 GSM 1900:level 0 UMTS Band II/IV/V:all up bits LTE FDD 2/4/5/7/12/17/26/66:max power LTE TDD 38/41:max power
EUT Accessory	
Battery 1	Manufacturer: Huawei Technologies Co., Ltd. (SCUD (Fujian) Electronics Co., LTD.) Model: HB486486ECW SN: 6DUNACI724G00064
Battery 2	Manufacturer: Huawei Technologies Co., Ltd. (Desay Battery Electronic Co.,LTD) Model: HB486486ECW

	SN: 5WNDAYI726X00085
Earphone 1	Manufacturer: Jiangxi Lianchuang Hongsheng Electronic Co. ,LTD Model: MEND1632B729000
Earphone 2	Manufacturer: GoerTek Inc. Model: Windy-C
Earphone 3	Manufacturer: Boluo County Quancheng Electronic Co.,ltd Model: 1331-3301-6001-TC-296
Earphone 4	Manufacturer: Foster Electric Co.,(GuangZhou)LTD.Sales Dep. Model: 618017

Wireless Technology and Frequency Range

Wireless Technology		Modulation	Operating mode	Tx (MHz)
GSM	850	Voice(GMSK) GPRS(GMSK)	<input type="checkbox"/> Multi-slot Class:8-1UP <input type="checkbox"/> Multi-slot Class:10-2UP	824 ~ 849
	1900	EGPRS(GMSK,8PSK)	<input checked="" type="checkbox"/> Multi-slot Class:12-4UP <input type="checkbox"/> Multi-slot Class:33-4UP	1850 ~ 1910
	Does this device support DTM (Dual Transfer Mode)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
UMTS	Band II	QPSK	HSDPA UE Category:14	1850 ~ 1910
	Band IV		HSUPA UE Category:6	1710 ~ 1755
	Band V		DC-HSDPA UE Category:24	824 ~ 849
LTE	FDD 2	QPSK, 16QAM, 64QAM	Rel.13 /Category 21	1850 ~ 1910
	FDD 4			1710 ~ 1755
	FDD 5			824 ~ 849
	FDD 7			2500 ~ 2570
	FDD 12			699 ~ 716
	FDD 17			704 ~ 716
	FDD 26			814 ~ 849
	TDD 38			2570 ~ 2620
	TDD 41			2535 ~ 2655
	FDD 66			1710 ~ 1780
	Does this device support Carrier Aggregation (CA) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Does this device support SV-LTE (1xRTT-LTE)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
BT	2.4G	Version 5.0 LE		2402 ~2480
Wi-Fi	2.4G	DSSS,OFDM	802.11b/g/n HT20	2412 ~ 2462
		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 <input checked="" type="checkbox"/> Yes (2TX, 2RX) <input type="checkbox"/> No				
NFC		13.56MHz		
Wireless Charging		110kHz-148kHz		

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:

248227 D01 802.11Wi-Fi SAR v02r02
447498 D01 General RF Exposure Guidance v06
648474 D04 Handset SAR v01r03
690783 D01 SAR Listings on Grants v01r03
865664 D01 SAR measurement 100 MHz to 6 GHz v01r04
865664 D02 RF Exposure Reporting v01r02
941225 D01 3G SAR Procedures v03r01
941225 D05 SAR for LTE Devices v02r05
941225 D05A LTE Rel.10 KDB Inquiry Sheet v01r02
941225 D06 Hotspot Mode v02r01
616217 D04 SAR for laptop and tablets v01r02

5 Operational Conditions during Test

5.1 Test Positions

5.1.1 Against Phantom Head

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

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

5.1.2 Body Worn Configuration

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

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

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

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

5.1.3 Phablet SAR test considerations

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

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

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

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

5.2 Measurement Variability

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

SAR Measurement Variability was assessed using the following procedures for each frequency band:

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

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

5.3 Test Configuration

5.3.1 GSM Test Configuration

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

Output power of reductions:

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

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

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

5.3.2 UMTS Test Configuration

5.3.2.1 3G SAR Test Reduction Procedure

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

5.3.2.2 Head SAR

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

5.3.2.3 Body-worn accessory SAR

SAR for body-worn accessory configurations is measured using a 12.2 kbps RMC with TPC bits

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

5.3.2.4 Release 5 HSDPA Test Configuration

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

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

Table 3: Subtests for UMTS Release 5 HSDPA

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

Note1: Δ_{ACK} , Δ_{NACK} and $\Delta_{CQI} = 8 \Leftrightarrow A_{hs} = \beta_{hs}/\beta_c = 30/15 \Leftrightarrow \beta_{hs} = 30/15 * \beta_c$
Note2: CM=1 for $\beta_c/\beta_d = 12/15$, $\beta_{hs}/\beta_c = 24/15$.
Note3: For subtest 2 the β_c/β_d ratio of 12/15 for the TFC during the measurement period(TF1,TF0) is achieved by setting the signaled gain factors for the reference TFC (TFC1,TF1) to $\beta_c=11/15$ and $\beta_d=15/15$.

5.3.2.5 Release 6 HSUPA Test Configuration

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

When VOIP is applicable for next to the ear head exposure in HSPA, the 3G SAR test reduction procedure is applied to HSPA with 12.2 kbps RMC as the primary mode; otherwise, the same HSPA configuration used for body-worn accessory measurements is tested for next to the ear head exposure.

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

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

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

Note 1: $\Delta_{ACK}, \Delta_{NACK}$ and $\Delta_{CQI} = 8 \Leftrightarrow A_{hs} = \beta_{hs}/\beta_c = 30/15 \Leftrightarrow \beta_{hs} = 30/15 * \beta_c$.

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

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

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

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

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

Table 5: HSUPA UE category

UE E-DCH Category	Maximum E-DCH Codes Transmitted	Number of HARQ Processes	E-DCH TTI (ms)	Minimum Spreading Factor	Maximum E-DCH Transport Block Bits	Max Rate (Mbps)
1	1	4	10	4	7110	0.7296
2	2	8	2	4	2798	1.4592
	2	4	10	4	14484	
3	2	4	10	4	14484	1.4592
4	2	8	2	2	5772	2.9185
	2	4	10	2	20000	2.00
5	2	4	10	2	20000	2.00
6	4	8	2	2 SF2 & 2 SF4	11484	5.76

(No DPDCH)	4	4	10		20000	2.00
7	4	8	2	2 SF2 & 2 SF4	22996	?
(No DPDCH)	4	4	10		20000	?
<p>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)</p>						

5.3.2.6 HSPA and DC-HSDPA Test Configuration

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

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

- 1) The HSPA procedures are applied to configure 3GPP Rel. 6 HSPA devices in the required sub-test mode(s) to determine SAR test exclusion.
- 2) SAR is required for Rel. 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.
- 3) Regardless of whether a PBA is required, the following information must be verified and included in the SAR report for devices supporting HSPA or DC-HSDPA:
 - a) The output power measurement results and applicable release version(s) of 3GPP TS 34.121.
 - i) Power measurement difficulties due to test equipment setup or availability must be resolved between the grantee and its test lab.
 - b) The power measurement results are in agreement with the individual device implementation and specifications. When Enhanced MPR (E-MPR) applies, the normal MPR targets may be modified according to the Cubic Metric (CM) measured by the device, which must be taken into consideration.
 - c) The UE category, operating parameters, such as the β and Δ values used to configure the device for testing, power setback procedures described in 3GPP TS 34.121 for the power measurements, and HSPA channel conditions (active and stable) for the entire duration of the measurement according to the required E-TFCI and AG index values.
- 4) When SAR measurement is required, the test configurations, procedures and power measurement results must be clearly described to confirm that the required test parameters are used, including E-TFCI and AG index stability and output power conditions.

Table 6: HS-DSCH UE category

Table 5.1a: FDD HS-DSCH physical layer categories

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

5.3.3 LTE Test Configuration

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

A) Spectrum Plots for RB Configurations

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

B) MPR

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

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

C)A-MPR

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

D) Largest channel bandwidth standalone SAR test requirements

1) QPSK with 1 RB allocation

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

2) QPSK with 50% RB allocation

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

3) QPSK with 100% RB allocation

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

4) Higher order modulations

For each modulation besides QPSK; e.g., 16-QAM, 64-QAM, apply the QPSK procedures in above sections to determine the QAM configurations that may need SAR measurement. For each configuration identified as required for testing, SAR is required only when the highest maximum output power for the configuration in the higher order modulation is $> \frac{1}{2}$ dB higher than the same configuration in QPSK or when the reported SAR for the QPSK configuration is > 1.45 W/kg.

E) Other channel bandwidth standalone SAR test requirements

For the other channel bandwidths used by the device in a frequency band, apply all the procedures required for the largest channel bandwidth in section A) to determine the channels and RB configurations that need SAR testing and only measure SAR when the highest maximum output power of a configuration requiring testing in the smaller channel bandwidth is $> \frac{1}{2}$ dB higher than the equivalent channel configurations in the largest channel bandwidth configuration or the *reported* SAR of a configuration for the largest channel bandwidth is > 1.45 W/kg.

5.3.4 Additional requirements for TDD LTE specification

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

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

Figure 1: Frame structure type 2

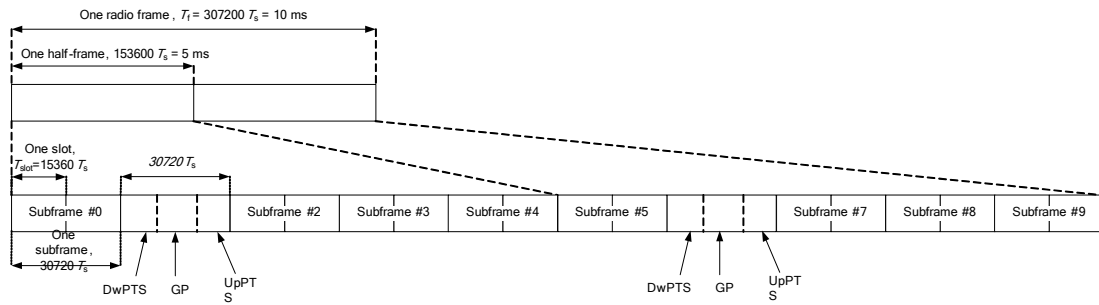


Table 7: Configuration of special subframe (lengths of DwPTS/GP/UpPTS)

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

Table 8: Uplink-downlink configurations

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

According to Figure 1, one radio frame is configured by 10 subframes, which consist of Uplink-subframe, Downlink-subframe and Special subframe. For TDD-LTE, the Duty Cycle should be calculated on Uplink-subframes and Special subframes, due to Special subframe containing both Uplink transmissions. So for one radio frame, Duty Cycle can be calculated with formula as below.

The count of Uplink subframes are according to Table: Uplink-downlink configurations:

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

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

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

In conclusion, for the TDD LTE Band, Duty Cycle can be calculated with formula as below .all these

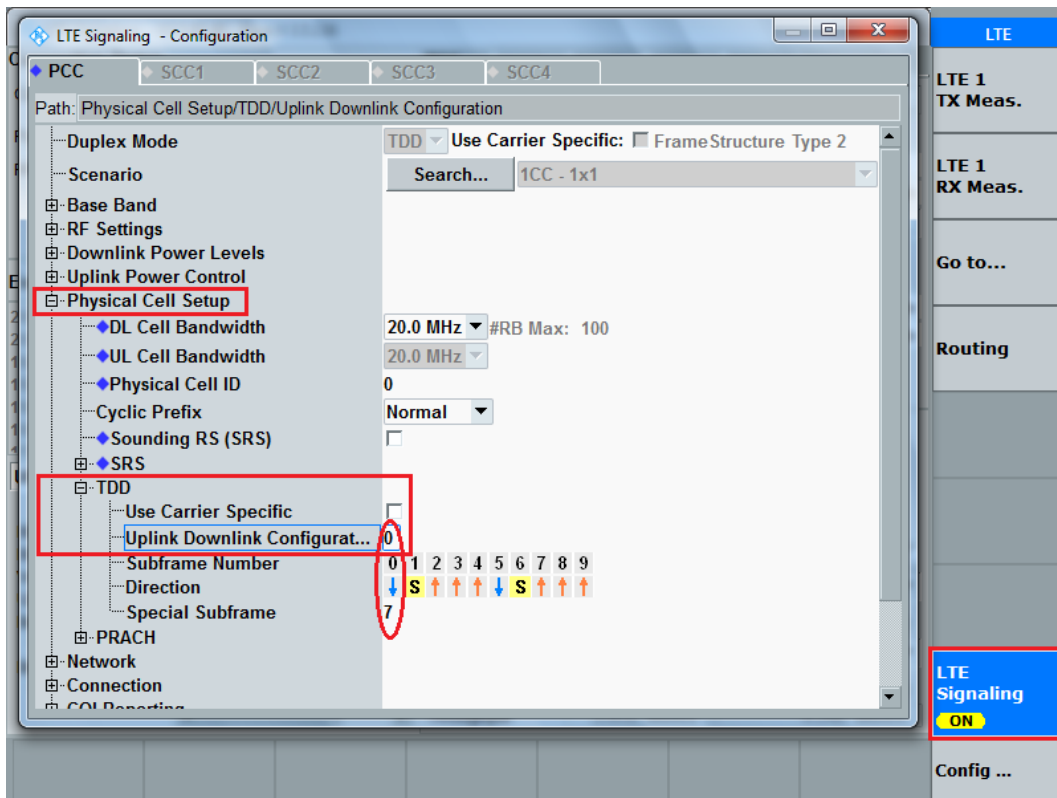
sets are ok when we test, or we can set as below.

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

And we can get different Duty cycles under different configurations:

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

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



5.3.5 Wi-Fi Test Configuration

For Wi-Fi SAR testing, a communication link is set up with some command for Wi-Fi mode test. During the test, at the each test frequency channel, the EUT is operated at the RF continuous emission mode. Per KDB248227 D01, a minimum transmission duty factor of 85% is required to avoid certain hardware and device implementation issues related to wide range SAR scaling. The reported SAR must be scaled to 100% transmission duty factor to determine compliance at the maximum tune-up tolerance limit.

5.3.5.1 Initial Test Position Procedure

For exposure condition with multiple test position, such as handsets operating next to the ear, devices with hotspot mode or UMPC mini-tablet, procedures for initial test position can be applied. Using the transmission mode determined by the DSSS procedure or initial test configuration, area scans are measured for all position in an exposure condition. The test position with the highest extrapolated(peak) SAR is used as the initial test position. When reported SAR for the initial test position is $\leq 0.4\text{W/kg}$, no additional testing for the remaining test position is required. Otherwise, SAR is evaluated at the subsequent highest peak SAR position until the reported SAR result is $\leq 0.8\text{W/kg}$ or all test position are measured. For all positions/configurations tested using the initial test position and subsequent test positions, when the reported SAR is $> 0.8\text{ W/kg}$, SAR is measured for these test positions/configurations on the subsequent next highest measured output power channel(s) until the reported SAR is $\leq 1.2\text{ W/kg}$ or all required channels are tested.

5.3.5.2 Initial Test Configuration Procedure

An initial test configuration is determined for OFDM transmission modes according to the channel bandwidth, modulation and data rate combination(s) with the highest maximum output power specified for production units in each standalone and aggregated frequency band. SAR is measured using the highest measured maximum output power channel. For configurations with the same specified or measured maximum output power, additional transmission mode and test channel selection procedures are required (see section 5.3.2 of KDB248227 D01). SAR test reduction of subsequent highest output test channels is based on the reported SAR of the initial test configuration.

For next to the ear, hotspot mode and UMC mini-tablet exposure configurations where multiple test positions are required, the initial test position procedure is applied to minimize the number of test positions required for SAR measurement using the initial test configuration transmission mode. For fixed exposure conditions that do not have multiple SAR test positions, SAR is measured in the transmission mode determined by the initial test configuration.

When the reported SAR of the initial test configuration is $> 0.8\text{ W/kg}$, SAR measurement is required for the subsequent next highest measured output power channel(s) in the initial test configuration until the reported SAR is $\leq 1.2\text{ W/kg}$ or all required channels are tested.

5.3.5.3 Sub Test Configuration Procedure

SAR measurement requirements for the remaining 802.11 transmission mode configurations that have not been tested in the initial test configuration are determined separately for each standalone and aggregated frequency band, in each exposure condition, according to the maximum output power specified for production units.

When the highest reported SAR for the initial test configuration, according to the initial test position or fixed exposure position requirements, is adjusted by the ratio of the subsequent test configuration to initial test configuration specified maximum output power and the adjusted SAR is ≤ 1.2 W/kg, SAR is not required for that subsequent test configuration.

5.3.5.4 Wi-Fi 2.4G SAR Test Procedures

Separate SAR procedures are applied to DSSS and OFDM configurations in the 2.4 GHz band to simplify DSSS test requirements. For 802.11b DSSS SAR measurements, DSSS SAR procedure applies to fixed exposure test position and initial test position procedure applies to multiple exposure test positions.

A) 802.11b DSSS SAR Test Requirements

SAR is measured for 2.4 GHz 802.11b DSSS using either a fixed test position or, when applicable, the initial test position procedure. SAR test reduction is determined according to the following:

- 1) When the reported SAR of the highest measured maximum output power channel (section 3.1 of KDB248227 D01) for the exposure configuration is ≤ 0.8 W/kg, no further SAR testing is required for 802.11b DSSS in that exposure configuration.
- 2) When the reported SAR is > 0.8 W/kg, SAR is required for that exposure configuration using the next highest measured output power channel. When any reported SAR is > 1.2 W/kg, SAR is required for the third channel; i.e., all channels require testing.

B) 2.4GHz 802.11g/n OFDM SAR Test Exclusion Requirements

When SAR measurement is required for 2.4 GHz 802.11g/n OFDM configurations, the measurement and test reduction procedures for OFDM are applied (section 5.3 of KDB248227 D01). SAR is not required for the following 2.4 GHz OFDM conditions.

- 1) When KDB Publication 447498 SAR test exclusion applies to the OFDM configuration.
- 2) When the highest reported SAR for DSSS is adjusted by the ratio of OFDM to DSSS specified maximum output power and the adjusted SAR is ≤ 1.2 W/kg.

C) SAR Test Requirements for OFDM configurations

When SAR measurement is required for 802.11 a/g/n/ac OFDM configurations, each standalone and frequency aggregated band is considered separately for SAR test reduction. When the same transmitter and antenna(s) are used for U-NII-1 and U-NII-2A bands, additional SAR test reduction applies. When band gap channels between U-NII-2C band and 5.8 GHz U-NII-3 or §15.247 band are supported, the highest maximum output power transmission mode configuration and maximum output power channel across the bands must be used to determine SAR test reduction, according to the initial test configuration and subsequent test configuration requirements. In applying the initial test configuration and subsequent test configuration procedures, the 802.11 transmission configuration with the highest specified maximum output power and the channel within a test configuration with the highest measured maximum output power should be clearly distinguished to apply the procedures.

5.3.5.5 U-NII-1 and U-NII-2A Bands

For devices that operate in only one of the U-NII-1 and U-NII-2A bands, the normally required SAR

procedures for OFDM configurations are applied. For devices that operate in both U-NII bands using the same transmitter and antenna(s), SAR test reduction is determined according to the following:

- 1) When the same maximum output power is specified for both bands, begin SAR measurement in U-NII-2A band by applying the OFDM SAR requirements. If the highest reported SAR for a test configuration is ≤ 1.2 W/kg, SAR is not required for U-NII-1 band for that configuration (802.11 mode and exposure condition); otherwise, both bands are tested independently for SAR.
- 2) When different maximum output power is specified for the bands, begin SAR measurement in the band with higher specified maximum output power. The highest reported SAR for the tested configuration is adjusted by the ratio of lower to higher specified maximum output power for the two bands. When the adjusted SAR is ≤ 1.2 W/kg, SAR is not required for the band with lower maximum output power in that test configuration; otherwise, both bands are tested independently for SAR
- 3) The two U-NII bands may be aggregated to support a 160 MHz channel on channel number 50. Without additional testing, the maximum output power for this is limited to the lower of the maximum output power certified for the two bands. When SAR measurement is required for at least one of the bands and the highest reported SAR adjusted by the ratio of specified maximum output power of aggregated to standalone band is > 1.2 W/kg, SAR is required for the 160 MHz channel. This procedure does not apply to an aggregated band with maximum output higher than the standalone band(s); the aggregated band must be tested independently for SAR. SAR is not required when the 160 MHz channels operating at a reduced maximum power and also qualifies for SAR test exclusion.

5.3.5.6 U-NII-2C and U-NII-3 Bands

The frequency range covered by these bands is 380 MHz (5.47 - 5.85 GHz), which requires a minimum of at least two SAR probe calibration frequency points to support SAR measurements. when Terminal Doppler Weather Radar (TDWR) restriction applies, the channels at 5.60 - 5.65 GHz in U-NII-2C band must be disabled with acceptable mechanisms and documented in the equipment certification to avoid SAR requirements. 10 TDWR restriction does not apply under the new rules; all channels that operate at 5.60 - 5.65 GHz must be included to apply the SAR test reduction and measurement procedures.

When the same transmitter and antenna(s) are used for U-NII-2C band and U-NII-3 band or 5.8 GHz band of §15.247, the bands may be aggregated to enable additional channels with 20, 40 or 80 MHz bandwidth to span across the band gap, as illustrated in Appendix B. The maximum output power for the additional band gap channels is limited to the lower of those certified for the bands. Unless band gap channels are permanently disabled, they must be considered for SAR testing. The frequency range covered by these bands is 380 MHz (5.47 - 5.85 GHz), which requires a minimum of at least two SAR probe calibration frequency points to support SAR measurements. To maintain SAR measurement accuracy and to facilitate test reduction, the channels in U-NII-2C band above 5.65GHz may be grouped with the 5.8 GHz channels in U-NII-3 or §15.247 band to enable two SAR probe calibration frequency points to cover the bands, including the band gap channels.¹¹ When band gap channels are supported and the bands are not aggregated for SAR testing, band gap channels must be considered independently in each band according to the normally required OFDM SAR measurement and probe calibration frequency points requirements.

5.3.5.7 OFDM Transmission Mode SAR Test Channel Selection Requirements

For 2.4 GHz and 5 GHz bands, When the same maximum output power was specified for multiple OFDM transmission mode configurations in a frequency band or aggregated band, SAR is measured using the configuration with the largest channel bandwidth, lowest order modulation and lowest data rate. When the maximum output power of a channel is the same for equivalent OFDM configurations (for example 802.11a, 802.11n and 802.11ac, or 802.11g and 802.11n, with the same channel bandwidth, modulation, and data rate, etc), the lower order 802.11 mode (i.e., 802.11a is chosen over 802.11n then 802.11ac, or 802.11g is chosen over 802.11n) is used for SAR measurement. When the maximum output power are the same for multiple test channel, either according to the default or additional power measurement requirement, SAR is measured using the channel closest to the middle of the frequency band or aggregated band, When there are multiple channels with the same maximum output power, SAR is measured using the higher number channel.

5.3.5.8 MIMO SAR Considerations

Per KDB248227 D01, simultaneous transmission provisions in KDB Publication 447498 should be used to determine simultaneous transmission SAR test exclusion for Wi-Fi MIMO. If the sum of 1-g SAR single transmission SAR measurement is <1.6W/kg, no additional SAR measurements for MIMO are required. Alternatively, SAR for MIMO can be measured with all antennas transmitting simultaneously at the specified maximum output power of MIMO operation.

5.3.6 Bluetooth Test Configuration

BT specific wireless modes and SAR test:

The device is a mobile phone. It supports a BT high power feature in specific wireless modes and operating configurations. The maximum power of BT is different on different scenarios. The BT of this device has two different operating modes:

- 1) Low power level mode (power level B, maximum duty cycle 100%) as default mode;
- 2) High power level mode (power level A, maximum duty cycle 100%) in specific wireless modes and operating configurations when the mobile phone is connected to an external audio device; Note: For this device, power level B is S power level A

Based on the BT high power mode detection technique description above, the different exposure conditions related to BT high power mode(Power level A) are listed as below table:

Operating modes	Max power level	Maximum duty cycle	Exposure condition Required for SAR testing	
			Head (Audio Receiver on)	Body-worn/Hotspot/ Product Specific 10-g
Low power level mode	power level B	100%	Yes (See Below Note 1)	Yes (See Below Note 1)
High power level mode	power level A	100%	N/A (See Below Note 2)	Yes

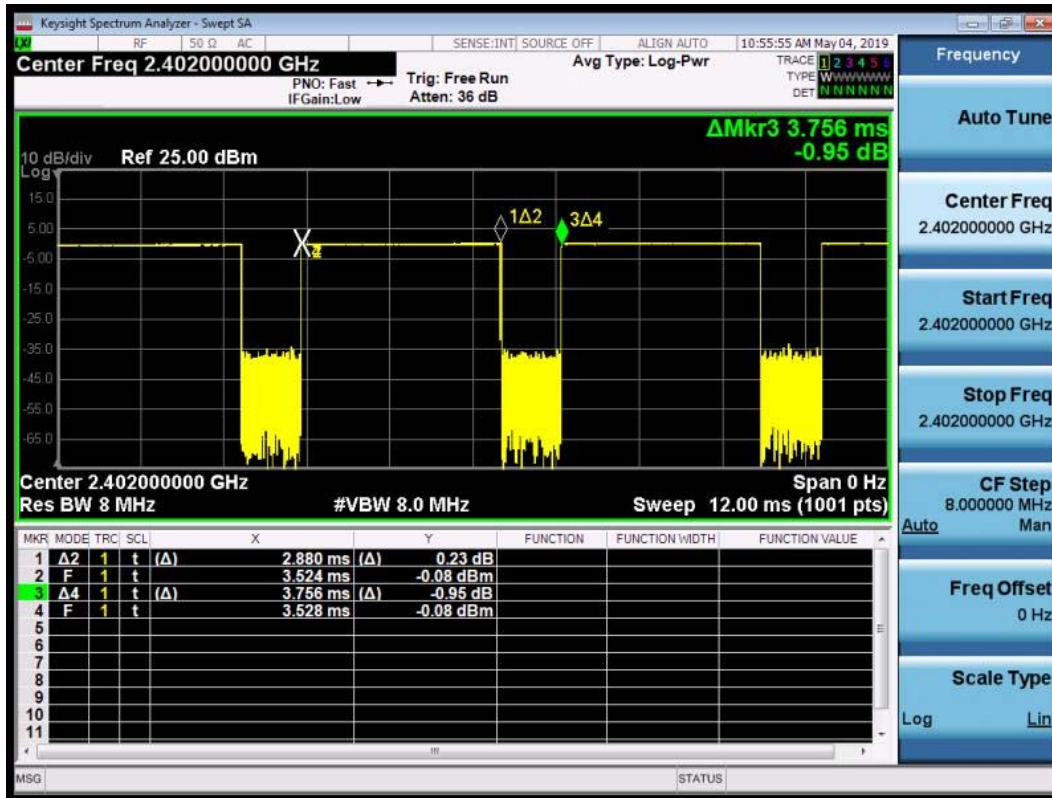
Note 1: The BT SAR results at low power level B is still required because the simultaneous transmission possibilities for BT at lower power level B and high power level A are different. The BT SAR results at low power level B should be used to evaluation the simultaneous transmission SAR

conditions not supported by BT higher power level A(Refer to Section 9 for details).

Note 2: High power level mode (power level A, maximum duty cycle 100%) is not applicable for Head exposure condition(Audio Receiver on) by design.

Note 3: Both the power level A and B results will be tested and provided in the SAR report to validate the power reduction function works.

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



Note: Duty factor= Ton (ms)/ T(on+off) (ms)=2.880/3.756=76.7%

5.3.7 LTE CA and downlink 4 x 4 MIMO specification

5.3.7.1 LTE CA combinations specification

The device supports downlink and uplink LTE Carrier Aggregation (CA) for Intra-band and inter-band.

a) The LTE release and version numbers of the 3GPP documents used to implement the specific device(s): Release 13, 3GPP TS 36.211 V13.3.0 (2016-09)

b) The associated 3GPP release and version numbers required for power measurements and RF test setup conditions:

Release 15, 3GPP TS 36.521-1 V15.3.1 (2018-09)

Release 15, 3GPP TS 36.101 V15.4.0 (2018-09)

1) The device supports Intra-band uplink LTE CA for CA_7C, CA_38C, CA_41C with two component carriers in the uplink.

2) The device supports Intra-band and inter-band downlink LTE CA (See the table below)

3) The device does not support full CA features on 3GPP Release 15 or higher. All other uplink communications are identical to the release 8 specifications. Other LTE Rel.10 or higher features are not supported, including Enhanced SC-FDMA, Uplink MIMO or other antenna diversity configurations, Wi-Fi offloading using LTE-U, LAA or LWA related protocols etc.

Intra-band contiguous CA operating bands

E-UTRA CA configuration / Bandwidth combination set							
E-UTRA CA configuration	Uplink CA configurations (NOTE 3)	Component carriers in order of increasing carrier frequency				Maximum aggregated bandwidth [MHz]	Bandwidth combination set
		Channel bandwidths for carrier [MHz]	Channel bandwidths for carrier [MHz]	Channel bandwidths for carrier [MHz]	Channel bandwidths for carrier [MHz]		
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				
CA_7C	CA_7C	15	15			40	0
		20	20				
		10	20			40	1
		15	15, 20				
		20	10, 15, 20			40	2
		15	10, 15				
20	15, 20						
CA_12B	-	5	5, 10			15	0

CA_38C	CA_38C	15	15			40	0
		20	20				
CA_41C	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			40	2
		10	15, 20				
		15	10, 15, 20				
		20	10, 15, 20			40	3
		10	20				
20	20						
CA_41D	CA_41C	10	20	15		60	0
		10	15, 20	20			
		15	20	10, 15			
		15	10, 15, 20	20			
		20	15, 20	10			
		20	10, 15, 20	15, 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				
CA_66D	-	5	20	20		60	0
		20	5	20			
		20	20	5			
		10	20	15			
		15	20	10			
		10, 15, 20	15, 20	20			
		15, 20	10	20			
		15	15, 20	15			
		20	15, 20	10, 15			
		20	10	15			

NOTE 1: The CA configuration refers to an operating band and a CA bandwidth class specified in Table (the indexing letter).

Absence of a CA bandwidth class for an operating band implies support of all classes.

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

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

Intra-band non-contiguous CA operating bands (with two sub-blocks)

E-UTRA CA configuration / Bandwidth combination set								
E-UTRACA configuration	Uplink CA configurations (NOTE 1)	Component carriers in order of increasing carrier frequency					Maximum aggregated bandwidth [MHz]	Bandwidth combination set
		Channel bandwidths for carriers [MHz]	Channel bandwidths for carriers [MHz]	Channel bandwidths for carriers [MHz]	Channel bandwidths for carriers [MHz]	Channel bandwidths for carriers [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_7A-7A	-	5	15				40	0
		10	10, 15					
		15	15, 20					
		20	20				40	1
		5, 10, 15, 20	5, 10, 15, 20					
		5, 10, 15, 20	5, 10					
		10, 15, 20	10, 15, 20				40	3
CA_12A-12A	-	5	5				10	0
CA_66A-66A	-	5, 10, 15, 20	5, 10, 15, 20				40	0

Inter-band CA operating bands (two bands)

E-UTRA CA configuration / Bandwidth combination set										
E-UTRA CA Configuration	Uplink CA configurations (NOTE4)	E-UTRA Bands	1.4MHz	3MHz	5MHz	10MHz	15MHz	20MHz	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-4A-4A	-	2			Yes	Yes	Yes	Yes	60	0
		4	See CA_4A-4A Bandwidth Combination Set 0							
CA_2A-5A	-	2			Yes	Yes	Yes	Yes	30	0

		5			Yes	Yes				
		2			Yes	Yes			20	1
		5			Yes	Yes				
CA_2A-2A-5A	-	2	See CA_2A-2A Bandwidth Combination Set 0						50	0
		5			Yes	Yes				
CA_2A-7A	-	2			Yes	Yes	Yes	Yes	40	0
		7			Yes	Yes	Yes	Yes		
CA_2A-2A-7A	-	2	See CA_2A-2A Bandwidth Combination Set 0						60	0
		7			Yes	Yes	Yes	Yes		
CA_2A-7A-7A	-	2			Yes	Yes	Yes	Yes	60	0
		7	See the CA_7A-7A Bandwidth combination set 1							
CA_2A-7C	-	2			Yes	Yes	Yes	Yes	60	0
		7	See the CA_7C Bandwidth combination set 1							
CA_2A-12A	-	2			Yes	Yes	Yes	Yes	30	0
		12			Yes	Yes				
		2			Yes	Yes	Yes	Yes	30	1
		12	Yes	Yes	Yes	Yes				
		2			Yes	Yes			20	2
		12			Yes	Yes				
CA_2A-2A-12A	-	2	See CA_2A-2A Bandwidth Combination Set 0						50	0
		12			Yes	Yes				
CA_2A-12A-12A	-	2			Yes	Yes	Yes	Yes	30	0
		12	See CA_12A-12A Bandwidth Combination Set 0							
CA_2A-12B	-	2			Yes	Yes	Yes	Yes	35	0
		12	See CA_12B Bandwidth Combination Set 0							
CA_2A-17A	-	2			Yes	Yes			20	0
		17			Yes	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-66C	-	2			Yes	Yes	Yes	Yes	60	0
		66	See CA_66C Bandwidth Combination Set 0							

CA_2A-2A-66A	-	2	See CA_2A-2A Bandwidth Combination Set 0						60	0
		66			Yes	Yes	Yes	Yes		
CA_2A-66A-66A	-	2			Yes	Yes	Yes	Yes	60	0
		66	See CA_66A-66A Bandwidth Combination Set 0							
CA_2A-2A-66C	-	2	See CA_2A-2A Bandwidth Combination Set 0						80	0
		66	See CA_66C Bandwidth combination set 0							
CA_4A-5A	-	4			Yes	Yes			20	0
		5			Yes	Yes				
		4			Yes	Yes	Yes	Yes	30	1
		5			Yes	Yes				
CA_4A-4A-5A	-	4	See CA_4A-4A Bandwidth Combination Set 0						50	0
		5			Yes	Yes				
CA_4A-7A	-	4			Yes	Yes			30	0
		7			Yes	Yes	Yes	Yes		
		4			Yes	Yes	Yes	Yes	40	1
		7			Yes	Yes	Yes	Yes		
CA_4A-4A-7A	-	4			Yes	Yes			40	0
		4			Yes	Yes				
		7			Yes	Yes	Yes	Yes		
		4			Yes	Yes	Yes	Yes	60	1
		4			Yes	Yes	Yes	Yes		
		7			Yes	Yes	Yes	Yes		
CA_4A-7C	-	4			Yes	Yes	Yes	Yes	60	0
		7	See CA_7C Bandwidth Combination Set 1							
CA_4A-7A-7A	-	4			Yes	Yes	Yes	Yes	60	0
		7	See the CA_7A-7A Bandwidth combination set 1							
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-4A-12A	-	4	See CA_4A-4A Bandwidth Combination Set 0					50	0	
		12			Yes	Yes				
CA_4A-12A-12A	-	4	See CA_4A-4A Bandwidth Combination Set 0					50	0	
		12			Yes	Yes				
CA_4A-12B	-	4			Yes	Yes	Yes	Yes	35	0
		12	See CA_12B Bandwidth Combination Set 0							
CA_4A-17A	-	4			Yes	Yes			20	0
		17			Yes	Yes				
CA_5A-7A	-	5	Yes	Yes	Yes	Yes			30	0
		7				Yes	Yes	Yes		
		5			Yes	Yes			30	1
CA_5A-7C	-	5			Yes	Yes			50	0
		7	See CA_7C Bandwidth Combination Set 1							
CA_5A-7A-7A	-	5			Yes	Yes			50	0
		7	See CA_7A-7A Bandwidth Combination Set 3							
CA_5A-66A	-	5			Yes	Yes			30	0
		66			Yes	Yes	Yes	Yes		
CA_5A-66C	-	5			Yes	Yes			50	0
		66	See CA_66C Bandwidth combination set 0							
CA_7A-12A	-	7			Yes	Yes	Yes	Yes	30	0
		12			Yes	Yes				
CA_7A-12B	-	7			Yes	Yes	Yes	Yes	35	0
		12	See CA_12B Bandwidth combination set 0							
CA_7A-66A	-	7			Yes	Yes	Yes	Yes	40	0
		66			Yes	Yes	Yes	Yes		
CA_7A-7A-66A-66A	-	7	See CA_7A-7A Bandwidth combination set 1					80	0	
		66	See CA_66A-66A Bandwidth Combination Set 0							
CA_7C-66A	CA_7C	7	See CA_7C Bandwidth Combination Set 1					60	0	
		66			Yes	Yes	Yes			Yes
CA_7A-7A-66A	-	7	See CA_7A-7A Bandwidth combination set 1					60	0	
		66			Yes	Yes	Yes			Yes

CA_7A-66A-66A	-	7			Yes	Yes	Yes	Yes	60	0
		66	See CA_66A-66A Bandwidth Combination Set 0							
CA_7C-66A-66A	-	7	See CA_7C Bandwidth Combination Set 1				80	0		
		66	See CA_66A-66A Bandwidth Combination Set 0							
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_12A-66A-66A	-	12			Yes	Yes			50	0
		66	See CA_66A-66A Bandwidth combination set 0							
CA_12B-66A	-	12	See CA_12B bandwidth combination set 0				35	0		
		66			Yes	Yes			Yes	Yes

Note:

- 1) For the inter-band CA combinations, Band12 and Band 17 can not be assigned PCC.
- 2) The channel spacing and aggregated channel bandwidth for CA are identical to the associated specification in Release 15,3GPP TS 36.521-1 V15.3.1 (2018-09) and Release 15,3GPP TS 36.101 V15.4.0(2018-09)
- 3) The reference test frequencies for CA refers to 3GPP TS 36.508 V15.4.0 (2018-12)

Inter-band CA operating bands (three bands)

E-UTRA CA configuration / Bandwidth combination set										
E-UTRA CA Configuration	Uplink CA configurations (NOTE 5)	E-UTRA Bands	1.4M Hz	3MHz	5MHz	10MHz	15MHz	20MHz	Maximum aggregated bandwidth [MHz]	Bandwidth combination set
CA_2A-4A-5A	-	2			Yes	Yes	Yes	Yes	50	0
		4			Yes	Yes	Yes	Yes		
		5			Yes	Yes				
CA_2A-4A-7A	-	2			Yes	Yes	Yes	Yes	60	0

		4			Yes	Yes	Yes	Yes		
		7			Yes	Yes	Yes	Yes		
CA_2A-4A-7A-7A	-	2			Yes	Yes	Yes	Yes	80	0
		4			Yes	Yes	Yes	Yes		
		7	See the CA_7A-7A Bandwidth combination set 1							
CA_2A-4A-7C	-	2			Yes	Yes	Yes	Yes	80	0
		4			Yes	Yes	Yes	Yes		
		7	See CA_7C Bandwidth Combination Set 1							
CA_2A-4A-12A	-	2			Yes	Yes	Yes	Yes	50	0
		4			Yes	Yes	Yes	Yes		
		12			Yes	Yes				
CA_2A-4A-12A-12A	-	2			Yes	Yes	Yes	Yes	50	0
		4			Yes	Yes	Yes	Yes		
		12	See CA_12A-12A Bandwidth Combination Set 0							
CA_2A-2A-5A-66A	-	2	See CA_2A-2A Bandwidth Combination Set 0				70	0		
		5			Yes	Yes				
		66			Yes	Yes			Yes	Yes
CA_2A-2A-5A-66C	-	2	See CA_2A-2A Bandwidth Combination Set 0				90	0		
		5			Yes	Yes				
		66	See CA_66C Bandwidth combination set 0							
CA_2A-2A-7A-12A	-	2	See CA_2A-2A Bandwidth combination set 0				70	0		
		7			Yes	Yes			Yes	Yes
		12			Yes	Yes				
CA_2A-2A-7A-66A	-	2	See CA_2A-2A Bandwidth Combination Set 0				80	0		
		7			Yes	Yes			Yes	Yes
		66			Yes	Yes			Yes	Yes
CA_2A-2A-12A-66A	-	2	See CA_2A-2A Bandwidth Combination Set 0				70	0		
		12			Yes	Yes				
		66			Yes	Yes			Yes	Yes
CA_2A-5A-66A	-	2			Yes	Yes	Yes	Yes	50	0
		5			Yes	Yes				
		66			Yes	Yes	Yes	Yes		
CA_2A-5A-66C	-	2			Yes	Yes	Yes	Yes	70	0
		5			Yes	Yes				
		66	See CA_66C Bandwidth combination							

		set 0									
CA_2A-7A-12A	-	2			Yes	Yes	Yes	Yes	50	0	
		7			Yes	Yes	Yes	Yes			
		12			Yes	Yes					
CA_2A-7A-12B	-	2			Yes	Yes	Yes	Yes	55	0	
		7			Yes	Yes	Yes	Yes			
		12	See CA_12B Bandwidth combination set 0								
CA_2A-7A-66A	-	2			Yes	Yes	Yes	Yes	60	0	
		7			Yes	Yes	Yes	Yes			
		66			Yes	Yes	Yes	Yes			
CA_2A-7A-7A-66A	-	2			Yes	Yes	Yes	Yes	80	0	
		7	See CA_7A-7A Bandwidth combination set 1								
		66			Yes	Yes	Yes	Yes			
CA_2A-7A-66A-66A	-	2			Yes	Yes	Yes	Yes	80	0	
		7			Yes	Yes	Yes	Yes			
		66	See CA_66A-66A Bandwidth combination set 0								
CA_2A-12A-66A	-	2			Yes	Yes	Yes	Yes	50	0	
		12			Yes	Yes					
		66			Yes	Yes	Yes	Yes			
		2			Yes	Yes			40	1	
		12			Yes	Yes					
		66			Yes	Yes	Yes	Yes			
CA_2A-12B-66A	-	2			Yes	Yes	Yes	Yes	55	0	
		12	See CA_12B Bandwidth Combination Set 0								
		66			Yes	Yes	Yes	Yes			
CA_4A-7A-12A	-	4			Yes	Yes			40	0	
		7			Yes	Yes	Yes	Yes			
		12			Yes	Yes					
		4			Yes	Yes	Yes	Yes	50	1	
		7			Yes	Yes	Yes	Yes			
		12			Yes	Yes					
CA_7A-12A-66A	-	7			Yes	Yes	Yes	Yes	50	0	
		12			Yes	Yes					
		66			Yes	Yes	Yes	Yes			
CA_7A-12B-66A	-	7			Yes	Yes	Yes	Yes	55	0	
		12	See CA_12B Bandwidth combination set 0								
		66			Yes	Yes	Yes	Yes			

Note:

- 1) For the inter-band CA combinations, Band12 and Band 17 can not be assigned PCC.
- 2) The channel spacing and aggregated channel bandwidth for CA are identical to the associated specification in Release 15,3GPP TS 36.521-1 V15.3.1 (2018-09) and Release 15,3GPP TS 36.101 V15.4.0(2018-09)
- 3) The reference test frequencies for CA refers to 3GPP TS 36.508 V15.4.0 (2018-12)

Inter-band CA operating bands (four bands)

E-UTRA CA configuration / Bandwidth combination set										
E-UTRA CA Configuration	Uplink CA configurations (NOTE 5)	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-2A-7A-12A-66A	-	2	See CA_2A-2A Bandwidth Combination Set 0						90	0
		7			Yes	Yes	Yes	Yes		
		12			Yes	Yes				
		66			Yes	Yes	Yes	Yes		
CA_2A-4A-7A-12A	-	2			Yes	Yes	Yes	Yes	70	0
		4			Yes	Yes	Yes	Yes		
		7			Yes	Yes	Yes	Yes		
		12			Yes	Yes				
CA_2A-7A-12A-66A	-	2			Yes	Yes	Yes	Yes	70	0
		7			Yes	Yes	Yes	Yes		
		12			Yes	Yes				
		66			Yes	Yes	Yes	Yes		
CA_2A-7A-12B-66A	-	2			Yes	Yes	Yes	Yes	75	0
		7			Yes	Yes	Yes	Yes		
		12	See CA_12B Bandwidth combination set 0							
		66			Yes	Yes	Yes	Yes		

Note:

- 1) For the inter-band CA(four bands) combinations, Band12 cannot be assigned as PCC.

5.3.7.2 Test procedure for downlink CA

According to 201804 FCC RF Exposure TCB workshop slides, the guidance does not consider Intra-band DL CA and inter-band DL CA separately.

In applying the power measurement procedures of KDB 941225 D05A for DL CA SAR test exclusion, only the CA configuration with the largest aggregated DL CA bandwidth in each frequency band group need consideration (independently for contiguous and non-contiguous CA). When the same frequency band is used for both contiguous and non-contiguous CA, power may be measured using the configuration with the largest aggregated bandwidth “and” maximum output power among the

contiguous and non-contiguous CA configurations, otherwise, these are considered separately. In applying the existing power measurement procedures of KDB 941225 D05A for DL CA SAR test exclusion, only the subset with the largest number of combinations of frequency bands and CCs in each row need consideration.

the configurations that require power measurements are in the table as below:

Index	2CCs	Restriction	Covered by	Index	3CCs	Restriction	Covered by	Index	4CCs	Restriction	Covered by	Index	5CCs	Restriction	Covered by
2CCs#1	CA_2C		No	3CCs#1	CA_41D		No	4CCs#1	CA_2A-2A-66C		5CCs#1	5CCs#1	CA_2A-2A-5A-66C		No
2CCs#2	CA_5B		No	3CCs#2	CA_66D		No	4CCs#2	CA_7A-7A-66A-66A		5CCs#2	5CCs#2	CA_2A-2A-7A-12A-66A		No
2CCs#3	CA_7C		3CCs#7	3CCs#3	CA_2A-4A-4A		No	4CCs#3	CA_7C-66A-66A		5CCs#3	5CCs#3	CA_2A-7A-12B-66A		No
2CCs#4	CA_12B		3CCs#10	3CCs#4	CA_2A-2A-5A		4CCs#7	4CCs#4	CA_2A-4A-7A-7A						
2CCs#5	CA_38C		No	3CCs#5	CA_2A-2A-7A		4CCs#8	4CCs#5	CA_2A-4A-7C						
2CCs#6	CA_41C		No	3CCs#6	CA_2A-7A-7A		4CCs#4	4CCs#6	CA_2A-4A-12A-12A						
2CCs#7	CA_66B		No	3CCs#7	CA_2A-7C		4CCs#5	4CCs#7	CA_2A-2A-5A-66A						
2CCs#8	CA_66C		3CCs#11	3CCs#8	CA_2A-2A-12A		4CCs#8	4CCs#8	CA_2A-2A-7A-12A				5CCs#2		
2CCs#9	CA_2A-2A		3CCs#4	3CCs#9	CA_2A-12A-12A		4CCs#6	4CCs#9	CA_2A-2A-7A-66A				5CCs#2		
2CCs#10	CA_4A-4A		3CCs#3	3CCs#10	CA_2A-12B		4CCs#12	4CCs#10	CA_2A-2A-12A-66A				5CCs#2		
2CCs#11	CA_7A-7A		3CCs#6	3CCs#11	CA_2A-66C		4CCs#1	4CCs#11	CA_2A-5A-66C				5CCs#1		
2CCs#12	CA_12A-12A		3CCs#9	3CCs#12	CA_2A-2A-66A		4CCs#7	4CCs#12	CA_2A-7A-12B				5CCs#3		
2CCs#13	CA_66A-66A		3CCs#13	3CCs#13	CA_2A-66A-66A		4CCs#14	4CCs#13	CA_2A-7A-7A-66A				No		
2CCs#14	CA_2A-4A		3CCs#3	3CCs#14	CA_4A-4A-5A		No	4CCs#14	CA_2A-7A-66A-66A				No		
2CCs#15	CA_2A-5A		3CCs#4	3CCs#15	CA_4A-4A-7A		No	4CCs#15	CA_2A-12B-66A				5CCs#3		
2CCs#16	CA_2A-7A		3CCs#5	3CCs#16	CA_4A-7C		4CCs#5	4CCs#16	CA_7A-12B-66A				5CCs#3		
2CCs#17	CA_2A-12A		3CCs#8	3CCs#17	CA_4A-7A-7A		4CCs#4	4CCs#17	CA_2A-4A-7A-12A				No		
2CCs#18	CA_2A-17A		No	3CCs#18	CA_4A-4A-12A		No	4CCs#18	CA_2A-7A-12A-66A				5CCs#2		
2CCs#19	CA_2A-66A		3CCs#12	3CCs#19	CA_4A-12A-12A		4CCs#6								
2CCs#20	CA_4A-5A		3CCs#14	3CCs#20	CA_4A-12B		No								
2CCs#21	CA_4A-7A		3CCs#15	3CCs#21	CA_5A-7C		No								
2CCs#22	CA_4A-12A		3CCs#18	3CCs#22	CA_5A-7A-7A		No								
2CCs#23	CA_4A-17A		No	3CCs#23	CA_5A-66C		4CCs#11								
2CCs#24	CA_5A-7A		3CCs#22	3CCs#24	CA_7A-12B		4CCs#12								
2CCs#25	CA_5A-66A		3CCs#33	3CCs#25	CA_7C-66A		4CCs#3								
2CCs#26	CA_7A-12A		3CCs#34	3CCs#26	CA_7A-7A-66A		4CCs#2								
2CCs#27	CA_7A-66A		3CCs#26	3CCs#27	CA_7A-66A-66A		4CCs#2								
2CCs#28	CA_12A-66A		3CCs#28	3CCs#28	CA_12A-66A-66A		No								
				3CCs#29	CA_12B-66A		4CCs#15								
				3CCs#30	CA_2A-4A-5A		No								
				3CCs#31	CA_2A-4A-7A		4CCs#4								
				3CCs#32	CA_2A-4A-12A		4CCs#6								
				3CCs#33	CA_2A-5A-66A		4CCs#7								
				3CCs#34	CA_2A-7A-12A		4CCs#8								
				3CCs#35	CA_2A-7A-66A		4CCs#9								
				3CCs#36	CA_2A-12A-66A		4CCs#10								
				3CCs#37	CA_4A-7A-12A		4CCs#17								

Refer to section 9.3 of this report for detailed DL CA conducted power measurement results

5.3.7.3 Test procedure for Intra-band uplink CA

For Intra-band uplink LTE CA measurement(Uplink CA 7C, CA 38C, CA 41C), the following procedure according to 201711 FCC RF Exposure TCB workshop slides is applied.

1)Maximum output power is measured for each UL CA configuration for the required test channels described in KDB 941225 D05(Rel. 8).

- UL PCC configuration is determined by the required test channel.
- SCC and subsequent CCs are added alternatively to either side of the PCC or within the transmission band for channels at the ends of a frequency band.

2)SAR for UL CA is required in each exposure condition and frequency band combination.

3) For this device, as the maximum output for Intra-band uplink LTE CA (Uplink CA 7C, CA 38C,CA 41C)is ≤ standalone LTE mode(without CA).

- PCC is configured according to the highest standalone SAR configuration tested.
- SCC and subsequent CCs are configured according to procedures used for power measurement and parameters (BW, RB etc.)similar to that used for the PCC.

4)When the reported SAR for UL CA configuration, described above, is >1.2 W/kg, UL CA SAR is also required for all required test channels(PCC, based).

5) UL CA SAR is also required for standalone SAR configurations >1.2 W/kg when they are scaled to the UL CA power level

Refer to section 9.3 of this report for detailed UL CA conducted power measurement results.

5.3.7.4 LTE Downlink 4 x 4 MIMO specification and Test procedure

LTE B2/B4/B7/B66 of this device support downlink 4*4 MIMO band, the information are tabulated below:

Single Band support DL 4*4MIMO	4*4MIMO Band
LTE Band 2	B2
LTE Band 4	B4
LTE Band 7	B7
LTE Band 66	B66
Intra-band contiguous CA With DL 4*4MIMO	4*4MIMO Band
CA_2C	B2
CA_7C	B7
CA_66B	B66
CA_66C	B66
CA_66D	B66
Inter-band CA (two bands) With DL 4*4MIMO	4*4MIMO Band
CA_2A-4A	B2,B4
CA_2A-5A	B2
CA_2A-7A	B2,B7
CA_2A-2A-7A	B7
CA_2A-7C	B2,B7
CA_2A-7A-7A	B2
CA_2A-12A	B2
CA_2A-12B	B2
CA_2A-12A-12A	B2
CA_2A-17A	B2
CA_2A-66A	B2,B66
CA_2A-2A-66A	B66
CA_2A-66C	B2,B66
CA_2A-2A-66C	B66
CA_4A-5A	B4
CA_4A-7A	B4,B7
CA_4A-4A-7A	B7
CA_4A-7C	B4,B7
CA_4A-12A	B4
CA_4A-12B	B4
CA_4A-12A-12A	B4
CA_4A-17A	B4

CA_5A-7A	B7
CA_5A-7C	B7
CA_5A-66A	B66
CA_5A-66C	B66
CA_7A-12A	B7
CA_7A-12B	B7
CA_7A-66A	B7,B66
CA_7C-66A	B7,B66
CA_7A-66A-66A	B7
CA_7C-66A-66A	B7
CA_12A-66A	B66
CA_12B-66A	B66
Inter-band CA (Three bands) With DL 4*4MIMO	4*4MIMO Band
CA_2A-4A-5A	B2,B4
CA_2A-4A-7A	B2,B4,B7
CA_2A-4A-7C	B2,B4
CA_2A-4A-7A-7A	B2
CA_2A-4A-12A	B2,B4
CA_2A-4A-12A-12A	B2,B4
CA_2A-5A-66A	B2,B66
CA_2A-2A-5A-66A	B66
CA_2A-5A-66C	B2,B66
CA_2A-2A-5A-66C	B66
CA_2A-7A-12A	B2,B7
CA_2A-2A-7A-12A	B7
CA_2A-7A-12B	B2,B7
CA_2A-7A-66A	B2,B7,B66
CA_2A-2A-7A-66A	B7,B66
CA_2A-7A-7A-66A	B2
CA_2A-7A-66A-66A	B7
CA_2A-12A-66A	B2,B66
CA_2A-2A-12A-66A	B66
CA_2A-12B-66A	B2,B66
CA_4A-7A-12A	B4,B7
CA_7A-12A-66A	B7,B66
CA_7A-12B-66A	B7,B66
Inter-band CA (Four bands) With DL 4*4MIMO	4*4MIMO Band
CA_2A-4A-7A-12A	B2,B4
CA_2A-7A-12A-66A	B2,B7
CA_2A-2A-7A-12A-66A	B7
CA_2A-7A-12B-66A	B2,B7

According to 201705 FCC RF Exposure TCB workshop slides, SAR test exclusion for LTE DL 4x4 MIMO should be determined by UL power measurements with and without DL MIMO using the highest UL output power configuration without DL MIMO to confirm that UL output with DL MIMO is < ¼ dB higher. For DL MIMO with carrier aggregation, the same SAR test exclusion procedure should be considered.

For LTE DL 4x4 MIMO with carrier aggregation, the same SAR test exclusion procedure should be considered: In applying the existing power measurement procedures of KDB 941225 D05A for DL CA SAR test exclusion, only the subset with the largest number of combinations of frequency bands and CCs in each row need consideration. the configurations that require power measurements are in the table as below:

Index	2CCs	Restriction	Covered by	Index	3CCs	Restriction	Covered by	Index	4CCs	Restriction	Covered by	Index	5CCs	Restriction	Covered by
2CCs#1	CA_2C		No	3CCs#1	CA_66D		No	4CCs#1	CA_2A-2A-66C		No	5CCs#1	CA_2A-2A-5A-66C		No
2CCs#2	CA_7C		No	3CCs#2	CA_2A-2A-7A		No	4CCs#2	CA_7C-66A-66A		No	5CCs#2	CA_2A-2A-7A-12A-66A		No
2CCs#3	CA_66B		No	3CCs#3	CA_2A-7C		No	4CCs#3	CA_2A-4A-7C		No	5CCs#3	CA_2A-7A-12B-66A		No
2CCs#4	CA_66C		No	3CCs#4	CA_2A-7A-7A		No	4CCs#4	CA_2A-4A-7A-7A		No				
2CCs#5	CA_2A-4A		No	3CCs#5	CA_2A-12B		No	4CCs#5	CA_2A-4A-12A-12A		No				
2CCs#6	CA_2A-5A		No	3CCs#6	CA_2A-12A-12A		No	4CCs#6	CA_2A-2A-5A-66A		No				
2CCs#7	CA_2A-7A		No	3CCs#7	CA_2A-2A-66A		No	4CCs#7	CA_2A-5A-66C		No	5CCs#1			
2CCs#8	CA_2A-12A		No	3CCs#8	CA_2A-66C		No	4CCs#8	CA_2A-2A-7A-12A		No	5CCs#2			
2CCs#9	CA_2A-17A		No	3CCs#9	CA_4A-4A-7A		No	4CCs#9	CA_2A-7A-12B		No	5CCs#3			
2CCs#10	CA_2A-66A		No	3CCs#10	CA_4A-7C		No	4CCs#10	CA_2A-2A-7A-66A		No	5CCs#2			
2CCs#11	CA_4A-5A		No	3CCs#11	CA_4A-12B		No	4CCs#11	CA_2A-7A-7A-66A		No				
2CCs#12	CA_4A-7A		No	3CCs#12	CA_4A-12A-12A		No	4CCs#12	CA_2A-7A-66A-66A		No				
2CCs#13	CA_4A-12A		No	3CCs#13	CA_5A-7C		No	4CCs#13	CA_2A-2A-12A-66A		No	5CCs#2			
2CCs#14	CA_4A-17A		No	3CCs#14	CA_5A-66C		No	4CCs#14	CA_2A-12B-66A		No	5CCs#3			
2CCs#15	CA_5A-7A		No	3CCs#15	CA_7A-12B		No	4CCs#15	CA_7A-12B-66A		No	5CCs#3			
2CCs#16	CA_5A-66A		No	3CCs#16	CA_7C-66A		No	4CCs#16	CA_2A-4A-7A-12A		No				
2CCs#17	CA_7A-12A		No	3CCs#17	CA_7A-66A-66A		No	4CCs#17	CA_2A-7A-12A-66A		No	5CCs#2			
2CCs#18	CA_7A-66A		No	3CCs#18	CA_12B-66A		No								
2CCs#19	CA_12A-66A		No	3CCs#19	CA_2A-4A-5A		No								
				3CCs#20	CA_2A-4A-7A		No								
				3CCs#21	CA_2A-4A-12A		No								
				3CCs#22	CA_2A-5A-66A		No								
				3CCs#23	CA_2A-7A-12A		No								
				3CCs#24	CA_2A-7A-66A		No								
				3CCs#25	CA_2A-12A-66A		No								
				3CCs#26	CA_4A-7A-12A		No								
				3CCs#27	CA_7A-12A-66A		No								

Refer to section 9.3 of this report for detailed DL 4*4 MIMO conducted power measurement results.

5.3.8 Power Reduction Configuration

This device uses the following power reduction features to reduce the transmit power and ensure SAR compliance. These power reduction features are implemented using a single fixed level of reduction through static table look-up for some wireless operating modes or frequency bands and triggered by a single event or operation. The published RF exposure KDB procedures are applicable to the specific implementation and applied for testing. So PAG is not required for these features.

- 1) A fixed level power reduction is applied for some frequency bands when hotspot mode becomes active. When the hotspot is disabled, the power value will be recovered.
- 2) A fixed level power reduction is applied for some frequency bands when 2G/3G/4G and WIFI transmit simultaneously.
- 3) This device uses the receiver to indicate whether the user is making a voice call in head scenario or not. The selection between head and body power levels is based on the receiver detection mechanism. A fixed level power reduction is applied for some frequency bands when the audio receiver is on.
- 4) This device uses the mobile country code (MCC) detection mechanism to indicate whether the users in CE countries and FCC countries in Wi-Fi bands. The selection between different power levels is based on the country code detection mechanism. It can determine the countries where users are and set the relevant power level for Wi-Fi antennas accordingly.

Antenna	MCC OF CE COUNTRY (CE standard)	MCC OF FCC COUNTRY (FCC standard)
WiFi 2.4G Core0 (Ant 1)	Power Level A3	Power Level B3
WiFi 2.4G Core1 (Ant 2)	Power Level A4	Power Level B4
WiFi 5G Core0 (Ant 1)	Power Level A5	Power Level B5
WiFi 5G Core1(Ant 2)	Power Level A6	Power Level B6

5) This device uses a proximity sensor to reduce the maximum output power of 2G/3G/4G main transmitting antenna in selected wireless modes and operating configurations to ensure SAR compliance. The procedures in KDB 616217 are applied to determine proximity sensor triggering distances, and sensor coverage for normal and tilt positions.

5.3.8.1 Power reduction triggered by specific use conditions (2G&3G&4G Second Antenna)

The following tables summarize the key power reduction information of 2G/3G/4G second antenna triggered by specific use conditions. The detailed full power and reduced conducted power measurement results are provided in Section 9 of this report.

Band	Second Antenna Power Reduction Level Amount (dB)	
	Second Antenna only	
	Receiver off	Receiver on
GSM850	0	5
GSM1900	0	3.5
UMTS Band II	0	6
UMTS Band IV	0	7
UMTS Band V	0	6
LTE Band 2	0	5.5
LTE Band 4	0	6.5
LTE Band 5	0	6
LTE Band 7	0	3.55
LTE Band 12	0	4
LTE Band 17	0	4
LTE Band 26	0	5
LTE Band 38	0	4.5
LTE Band 41	0	5
LTE Band 66	0	5

Note: For Head SAR test of 2G/3G/4G Second Antenna, standalone Head SAR should be evaluated with audio receiver on. The audio receiver only works in voice mode when the user is making a call in head scenario, lacking of the third-party VoIP server and the unstandardized VOIP operating characteristic, therefore, a test script tool is used to trigger the receiver on during the test. The test script is only used to trigger audio receiver on and simulate voice and VOIP usage scene. It can be ensured that the unmodified settings in production units, including maximum output power, amplifier gain and other RF performance or tuning parameters, are used for SAR measurement.

5.3.8.2 Country code detection mechanism

The device uses the mobile country code (MCC) to indicate whether the users in CE countries or FCC countries. The selection between CE countries and FCC countries power levels is based on the country code detection mechanism. It can determine the countries where users are and set the relevant power level for Wi-Fi antennas accordingly.

MCC of FCC countries										MCC of CE countries												
Receiver on					Receiver off					Receiver on					Receiver off							
Ant	Mode	CH	Tune-up (dBm)	conducted power validation results (dBm)	Antenna	Mode	CH	Tune-up (dBm)	conducted power validation results (dBm)	Ant	Mode	CH	Tune-up (dBm)	conducted power validation results (dBm)	Ant	Mode	CH	Tune-up (dBm)	conducted power validation results (dBm)			
Ant 1	802.11b	1-11	13	12.85	Ant 1	802.11b	1-11	18	16.78	Ant 1	802.11b	1-13	15.5	14.65	Ant 1	802.11b	1-13	18	17.25			
		1-2	11.5	10.68			1-2	11.5	10.23			1-2	11.5	10.68			1-2	11.5	10.65			
		3-9	13	12.22			3-9	18	16.42			3-9	15.5	14.52			3-9	18	16.84			
		10	10	9.15			10	10	8.7			10	10	9.45			10	10	9.11			
	802.11g	11	8.5	7.08		802.11g	11	8.5	6.83		802.11g	11	8.5	7.38		802.11g	11	8.5	7.19			
		1-2	11.5	10.12			1-2	11.5	9.74			1-2	11.5	10.12			1-2	11.5	10.1			
		3-9	13	11.81			3-9	17	15.14			3-9	15.5	14.48			3-9	17	15.65			
	802.11n-HT20	10	10	8.7		802.11n-HT20	10	10	8.3		802.11n-HT20	10	10	8.7		802.11n-HT20	10	10	8.7			
		11	8.5	6.57			11	8.5	6.75			11	8.5	7.07			11	8.5	7.15			
		3	7	5.04			3	7	5.12			3	7	5.54			3	7	5.57			
	802.11n-HT40	4	8.5	6.6		802.11n-HT40	4	8.5	6.73		802.11n-HT40	4	8.5	6.6		802.11n-HT40	4	8.5	7.03			
		5-6	13	12.53			5-6	15.5	13.71			5-6	15.5	14.34			5-6	15.5	14.14			
		7	8	6.02			7	8	6.08			7	8	6.6			7	8	6.48			
		8	7	5.09			8	7	5.03			8	7	5.59			8	7	5.55			
		9	6.5	4.56			9	6.5	4.55			9	6.5	5.06			9	6.5	4.98			
10-11		8	6.09	10-11	8		6.16	10-11	8	6.59		10-11	8	6.56								
Ant 2	802.11b	1-3	13	12.16	Ant 2	802.11b	1-11	17	15.85	Ant 2	802.11b	1-13	15.5	14.97	Ant 2	802.11b	1-12	17	16.37			
		4	10	9.4			1-2	11.5	9.94			1-2	11.5	9.94			13	16	14.77			
		5	8.5	7.19			3-9	17	15.84			3-9	15.5	14.46			1-2	11.5	10.39			
		6-7	11.5	10.06			10	10	9.06			10	10	9.4			3-9	17	16.34			
	802.11g	8-11	13	12.12		802.11g	11	8.5	6.59		802.11g	11	8.5	7.19		802.11g	11	8.5	7.11			
		1-3	13	12.28			1-2	11.5	9.6			1-2	11.5	10.06			12-13	17	16.16			
		4	10	9.24			3-9	16	14.75			3-9	15.5	14.58			1-2	11.5	10.03			
		5	8.5	7.03			10	10	8.69			10	10	9.24			3-9	16	15.06			
		6	7	5.61			11	8.5	6.57			11	8.5	7.03			10	10	9.06			
		7	8.5	7.12			5-6	14.5	12.66			5-6	14.5	13.61			12-13	15.5	14.53	11	8.5	7.11
	802.11n-HT20	8-9	13	12.31		802.11n-HT20	7	8	6.03		802.11n-HT20	7	8	6.03		802.11n-HT20	7	8	6.43			
		10	8	6.56			8	7	5.06			8	7	5.52			10	10	9.06			
		11	7	5.52			9	6.5	4.55			9	6.5	5.08			11	8.5	6.91			
		1	6.5	5.08			10-11	8	6.1			10-11	8	6.62			12-13	15.5	14.77	11	8.5	6.91
		2-3	8	6.62			1-2	14.51	13.1			3	7	5.61			3	7	5.61	12-13	16	14.56
4-6		13	12.16	3-9	20.54		19.15	4	8.5	7.12		4	8.5	7.12	3		7	5.62				
802.11n-HT40	7	10	9.4	802.11g	10	13.01	11.89	802.11n-HT40	5-6	14.5	13.61	802.11n-HT40	4	8.5	6.96							
	8	8.5	7.19		11	11.51	9.72		7	8	6.56		5-6	14.5	13.14							
	9-10	11.5	10.06		1-2	14.51	12.68		8	7	5.52		7	8	6.43							
	11	13	11.59		10	13.01	11.51		9	6.5	5.08		8	7	5.4							
802.11n-HT40	3-8	13	12.28	802.11n-HT40	11	11.51	9.67	802.11n-HT40	10-11	8	6.62	802.11n-HT40	9	6.5	5.01							
	9	10	9.24		3	10.01	8.12		1-2	14.51	13.34		10-11	8	6.6							
	10	8.5	7.03		4	11.51	9.69		3-9	18.51	17.39		1-2	14.51	13.57							
	11	7	5.61		6	18.04	16.19		10	13.01	12.29		3-9	20.54	19.46							
MIMO	802.11g	1-2	14.51	13.34	MIMO	802.11n-HT40	7	11.01	9.07	MIMO	802.11n-HT20	11	11.51	10.15	MIMO	802.11g	10	13.01	12.29			
		3-9	16.01	15.09			8	10.01	8.06			12-13	18.51	17.51			11	11.51	10.12			
		10	13.01	12.29			9	9.51	7.56			1-2	14.51	13.08			12-13	20.54	19.13			
		11	11.51	10.15			10-11	11.01	9.14			3-9	18.51	17.26			1-2	14.51	13.08			
	802.11n-HT20	1-2	14.51	13.08		802.11n-HT20	11	11.51	9.67		802.11n-HT20	10	13.01	11.99		802.11n-HT20	10	13.01	11.89			
		3-9	16.01	14.96			8	10.01	8.06			11	11.51	9.82			3-9	19.54	18.34			
		10	13.01	11.99			9	9.51	7.56			12-13	18.51	17.14			10	13.01	11.89			
	802.11n-HT40	11	11.51	9.82		802.11n-HT40	10-11	11.01	9.14		802.11n-HT40	3	10.01	8.34		802.11n-HT40	11	11.51	10			
		3	10.01	8.34			3	10.01	8.12			4	11.51	9.88			12-13	19.54	18.06			
		4	11.51	9.88			4	11.51	9.69			5-6	18.04	17.36			3	10.01	8.47			
5-6		16.01	15.06	6	18.04		16.19	7	11.01	9.31		4	11.51	10.15								
7		11.01	9.31	7	11.01		9.07	8	10.01	8.32		5-6	18.04	16.59								
8		10.01	8.32	8	10.01		8.06	9	9.51	7.84		7	11.01	9.44								
9	9.51	7.84	9	9.51	7.56	10-11	11.01	9.37	8	10.01	8.49											
10-11	11.01	9.37	10-11	11.01	9.37	10-11	11.01	9.37	9	9.51	7.95											
10-11	11.01	9.37	10-11	11.01	9.37	10-11	11.01	9.37	10-11	11.01	9.56	10-11	11.01	9.56								
10-11	11.01	9.37	10-11	11.01	9.37	10-11	11.01	9.37	10-11	11.01	9.37	10-11	11.01	9.37								
Receiver on					Receiver off					Receiver on					Receiver off							
Ant	Mode	CH	Tune-up (dBm)	conducted power validation results (dBm)	Antenna	Mode	CH	Tune-up (dBm)	conducted power validation results (dBm)	Ant	Mode	CH	Tune-up (dBm)	conducted power validation results (dBm)	Ant	Mode	CH	Tune-up (dBm)	conducted power validation results (dBm)			
Ant 1	802.11a	36	10.5	9.03	Ant 1	802.11a	36	10.5	9.84	Ant 1	802.11a	36	10.5	9.03	Ant 1	802.11a	36	10.5	9.86			
		40-60	12	11.93			40-60	16	15.67			40-60	16	15.43			40-60	16	15.73			

Ant 2	802.11n- HT20	64-100	10.5	9.56	802.11n- HT20	64-100	10.5	9.46	802.11n- HT20	64-100	10.5	9.56	802.11n- HT20	64-100	10.5	9.47
		104-136	12	11.4		104-136	16	14.78		104-136	16	14.9		104-136	16	14.74
		140	11	10.52		140	11	10.82		140	11	10.52		140	11	10.8
		149	11.5	10.74		149	11.5	11.44		149-165	11.5	11.29		149-165	11.5	11.43
		153-161	12	11.29		153-161	16	15.9		36	10.5	8.91		36	10.5	8.95
	802.11n- HT40	165	11.5	10.54	165	11.5	11.46	40-60	16	14.94	40-60	16	15.17			
		36	10.5	8.91	36	10.5	8.94	64-100	10.5	9.35	64-100	10.5	9.13			
		40-60	12	11.05	40-60	16	15.19	104-136	16	14.76	104-136	16	15.12			
		64-100	10.5	9.35	64-100	10.5	9.15	140	11	9.94	140	11	9.53			
		104-136	12	11.26	104-136	16	15.14	149-165	11.5	10.95	149-165	11.5	10.9			
802.11n- HT40	140	11	9.94	140	11	9.54	38	9.5	8.22	38	9.5	8.43				
	149	11.5	10.53	149	11.5	10.92	46-54	15.5	15.11	46-54	15.5	14.61				
	153-161	12	10.95	153-161	16	15.42	62	9	7.46	62	9	8.01				
	165	11.5	9.67	165	11.5	10.75	102	9.5	8.53	102	9.5	8.24				
	38	9.5	8.22	38	9.5	8.44	110-126	15.5	14.71	110-126	15.5	14.45				
802.11a c-VHT20	46-54	12	11.61	46-54	15.5	14.61	134	9.5	8.46	134	9.5	7.77				
	62	9	7.46	62	9	8.02	151-159	11.5	11.46	151-159	11.5	11.04				
	102	9.5	8.53	102	9.5	8.24	36	10.5	8.96	36	10.5	9				
	110-126	12	11.61	110-126	15.5	14.42	40-60	16	15.18	40-60	16	15.09				
	134	9.5	8.46	134	9.5	7.78	64-100	10.5	9.84	64-100	10.5	9.04				
802.11a c-VHT40	151-159	12	11.46	151-159	15.5	14.57	104-136	16	14.72	104-136	16	15.21				
	36	10.5	8.96	36	10.5	9.01	140	11	9.94	140	11	9.64				
	40-60	12	11.02	40-60	16	15.1	149-165	11.5	10.9	149-165	11.5	11.47				
	64-100	10.5	9.84	64-100	10.5	9.05	38	9.5	8.18	38	9.5	8.45				
	104-136	12	11.22	104-136	16	15.24	46-54	15.5	14.37	46-54	15.5	14.59				
802.11a c-VHT80	140	11	9.94	140	11	9.68	54	15.5	14.37	62	9	7.04				
	149	11.5	10.51	149	11.5	10.87	62	9	7.45	102	9.5	8.45				
	153-161	12	10.9	153-161	16	15.4	102	9.5	8.07	110-126	15.5	14.38				
	165	11.5	10.17	165	11.5	11.04	110-126	15.5	14.88	134	9.5	7.81				
	38	9.5	8.18	38	9.5	8.44	134	9.5	8.51	151-159	11.5	10.97				
802.11a c-VHT160	46-54	12	10.87	46-54	15.5	14.61	151-159	11.5	11.26	42-122	6.5	5.75				
	62	9	7.45	62	9	7.05	42-122	6.5	5.88	155	11.5	9.81				
	102	9.5	8.07	102	9.5	8.49	155	11.5	10.25	50-114	6.5	5.54				
	110-126	12	11.38	110-126	15.5	14.4	50-114	6.5	5.25	36	10.5	10.17				
	134	9.5	8.51	134	9.5	7.82	36	10.5	10.33	40-60	15.5	15.09				
Ant 2	802.11a	151-159	12	11.26	151-159	15.5	14.48	40-60	15.5	14.57	64-100	10.5	9.53			
		42-58	6.5	5.88	42-122	6.5	5.74	64-100	10.5	10.06	104-136	15.5	14.86			
		106-122	6.5	5.42	155	11.5	9.83	104-136	15.5	14.95	140	11	10.62			
		155	11.5	10.25	50-114	6.5	5.57	140	11	9.58	149-165	11.5	11.18			
		50-114	6.5	5.25	36	10.5	10.15	149-165	11.5	11.36	36	10.5	9.73			
Ant 2	802.11a	36	10.5	10.33	40-60	15.5	15.09	36	10.5	9.98	40-60	15.5	14.34			
		40-60	12	11.07	64-100	10.5	9.54	40-60	15.5	14.82	40-60	15.5	14.34			
		64-100	10.5	10.06	104-136	15.5	14.86	64-100	10.5	9.16	64-100	10.5	9.41			
		104-136	12	11.45	140	11	10.63	104-136	15.5	15.32	104-136	15.5	14.92			
		140	11	9.58	149	11.5	10.98	140	11	10.23	140	11	10.23			
	802.11n- HT20	149	11.5	11.32	153-161	15.5	15.28	149-165	11.5	11.35	149-165	11.5	11.45			
		153-161	12	11.68	165	11.5	11.17	38	9.5	9.34	38	9.5	8.91			
		165	11.5	10.81	36	10.5	9.72	46-54	15	14.51	46-54	15	13.75			
		36	10.5	9.98	40-60	15.5	14.33	62	9	7.27	62	9	7.78			
		40-60	12	11.32	64-100	10.5	9.41	102	9.5	8.64	102	9.5	8.22			
802.11n- HT40	64-100	10.5	9.16	104-136	15.5	14.93	110-126	15	14.73	110-126	15	13.95				
	104-136	12	11.82	140	11	10.24	134	9.5	9.05	134	9.5	9				
	140	11	10.23	149	11.5	10.46	151-159	11.5	11.36	151-159	11.5	10.81				
	149	11.5	10.88	153-161	15.5	15.06	36	10.5	9.97	36	10.5	9.26				
	153-161	12	11.35	165	11.5	10.73	40-60	15.5	15.06	40-60	15.5	14.87				
802.11a c-VHT20	165	11.5	10.52	38	9.5	8.92	64-100	10.5	9.33	64-100	10.5	9.31				
	38	9.5	9.34	46-54	15	13.75	104-136	15.5	15.3	104-136	15.5	14.91				
	46-54	12	11.77	62	9	7.78	140	11	10.21	140	11	10.3				
	62	9	7.27	102	9.5	8.18	149-165	11.5	11.37	149-165	11.5	11.41				
	102	9.5	8.64	110-126	15	13.96	38	9.5	8.34	38	9.5	9.26				
802.11a c-VHT40	110-126	12	11.73	134	9.5	8.97	46-54	15	14.67	46-54	15	14.24				
	134	9.5	9.05	151-159	15	14.31	62	9	7.41	62	9	7.72				
	151-159	12	11.36	36	10.5	9.27	102	9.5	8.5	102	9.5	7.92				
	36	10.5	9.97	40-60	15.5	14.88	110-126	15	14.25	110-126	15	13.83				
	40-60	12	11.56	64-100	10.5	9.31	134	9.5	9.1	134	9.5	8.7				
802.11a c-VHT80	64-100	10.5	9.33	104-136	15.5	14.9	151-159	11.5	10.94	151-159	11.5	10.54				
	104-136	12	11.8	140	11	10.32	42-122	6.5	5.73	42-122	6.5	5.92				
	140	11	10.21	149	11.5	10.45	155	11.5	10.69	155	11.5	9.9				
	149	11.5	10.98	153-161	15.5	15.11	50-114	6.5	6.48	50-114	6.5	5.22				
	153-161	12	11.26	165	11.5	11.09	36	13.5	12.74	36	13.5	13.31				
802.11a c-VHT40	165	11.5	11.37	38	9.5	9.25	40-60	18.8	17.99	40-60	18.8	18.4				
	38	9.5	8.34	46-54	15	14.26	64-100	13.5	12.56	64-100	13.5	12.42				
	46-54	12	11.67	62	9	7.72	104-136	18.8	17.87	104-136	18.8	18.31				

CDD/ MIMO	802.11ac -VHT80	62	9	7.41	802.11a c-VHT80	102	9.5	7.94	802.11n -HT20	140	14	13.09	802.11n -HT20	149-165	14.5	13.59		
		102	9.5	8.5		110-126	15	13.79		149-165	14.5	14.5		36	13.5	12.68		
		110-126	12	10.75		134	9.5	8.67		36	13.5	12.49		40-60	18.8	17.99		
		134	9.5	9.1		151-159	15	14.05		40-60	18.8	17.6		64-100	13.5	12.25		
		151-159	12	10.94		42-122	6.5	5.94		64-100	13.5	12.27		104-136	18.8	17.91		
	802.11ac -VHT160	42-58	6.5	5.73	802.11a c-VHT160	155	11.5	9.91	104-136	18.8	18.06	140	14	12.91	140	14	12.91	
		106-122	6.5	5.63	50-114	6.5	5.21	140	14	13.1	149-165	14.5	14.24	149-165	14.5	14.24		
	CDD/ MIMO	802.11a	155	11.5	10.69	802.11a	36	13.5	13.33	802.11n -HT40	149-165	14.5	14.16	802.11n -HT40	38	12.5	12.02	
			50-114	6.5	6.48		40-60	18.8	18.41		38	12.5	11.83		46-54	18.3	17.49	
			36	13.5	12.74		64-100	13.5	12.43		46-54	18.3	18.05		62	12	10.42	
			40-60	15	14.49		104-136	18.8	18.31		62	12	10.38		102	12.5	10.9	
			64-100	13.5	12.56		140	14	13.74		102	12.5	11.6		110-126	18.3	17.02	
		802.11n -HT20	104-136	15	14.37	149	17.3	14.23	110-126	18.3	17.61	134	12.5	11.4	802.11a c-VHT20	151-159	14.5	13.64
			140	14	13.09	153-161	18.8	18.61	134	12.5	11.78	140	14	13.01		36	13.5	12.15
			149	14.5	14.05	165	16.6	14.33	151-159	14.5	14.42	149-165	14.5	14.33		40-60	18.8	17.99
			153-161	15	14.5	36	13.5	12.69	36	13.5	12.5	36	13.5	12.15		64-100	13.5	12.18
			165	14.5	13.69	40-60	18.8	18	40-60	18.8	17.67	40-60	18.8	17.67		104-136	18.8	17.93
		802.11n -HT40	36	13.5	12.49	802.11n -HT20	64-100	13.5	12.25	64-100	13.5	12.6	140	14	13.09	104-136	18.8	17.93
			40-60	15	14.1	104-136	18.8	17.91	104-136	18.8	18.03	104-136	18.8	18.03	140	14	13.01	
64-100			13.5	12.27	140	14	12.91	140	14	13.09	140	14	13.09	149-165	14.5	14.33		
104-136			15	14.56	149	17.3	13.71	149-165	14.5	14.09	149-165	14.5	14.09	38	12.5	11.86		
140			14	13.1	153-161	18.8	18.25	38	12.5	11.27	38	12.5	11.27	46-54	18.3	17.45		
802.11n -HT40		149	14.5	13.72	165	16.6	13.75	46-54	18.3	17.95	46-54	18.3	17.95	62	12	10.4		
		153-161	15	14.16	38	12.5	12.02	62	12	10.44	62	12	10.44	102	12.5	11.22		
		165	14.5	13.13	46-54	18.3	17.49	102	12.5	11.3	102	12.5	11.3	110-126	18.3	16.9		
		38	12.5	11.83	62	12	10.43	110-126	18.3	17.53	110-126	18.3	17.53	134	12.5	11.25		
	46-54	15	14.55	102	12.5	10.93	134	12.5	11.83	134	12.5	11.83	151-159	14.5	14.18			
802.11ac -VHT20	62	12	10.38	802.11n -HT40	110-126	18.3	17.06	151-159	14.5	14.11	151-159	14.5	14.11	802.11a c-VHT80	42-122	9.5	8.95	
	102	12.5	11.6	134	12.5	11.43	42-122	9.5	8.82	42-122	9.5	8.82	155	14.5	12.88			
	110-126	15	14.11	151	18.3	17.27	802.11a c-VHT80	155	14.5	13.49	802.11a c-VHT160	50-114	9.5	8.59	50-114	9.5	8.59	
	134	12.5	11.78	159	17.8	17.45	50-114	9.5	8.86	/	/	/	/	/	/	/		
	151-159	15	14.42	36	13.5	12.15	/	/	/	/	/	/	/	/	/	/		
802.11ac -VHT40	36	13.5	12.5	802.11a c-VHT20	40-60	18.8	18	/	/	/	/	/	/	/	/	/		
	40-60	15	14.17	64-100	13.5	12.19	/	/	/	/	/	/	/	/	/	/		
	64-100	13.5	12.6	104-136	18.8	17.95	/	/	/	/	/	/	/	/	/	/		
	104-136	15	14.53	140	14	13.02	/	/	/	/	/	/	/	/	/	/		
	140	14	13.09	149	17.3	13.68	/	/	/	/	/	/	/	/	/	/		
802.11ac -VHT80	149	14.5	13.76	153-161	18.8	18.27	/	/	/	/	/	/	/	/	/	/		
	153-161	15	14.09	165	16.6	14.08	/	/	/	/	/	/	/	/	/	/		
	165	14.5	13.82	38	12.5	11.87	/	/	/	/	/	/	/	/	/	/		
	38	12.5	11.27	46-54	18.3	17.45	/	/	/	/	/	/	/	/	/	/		
	46-54	15	14.45	62	12	10.41	/	/	/	/	/	/	/	/	/	/		
802.11ac -VHT160	62	12	10.44	802.11a c-VHT40	102	12.5	11.23	/	/	/	/	/	/	/	/	/		
	102	12.5	11.3	110-126	18.3	16.92	/	/	/	/	/	/	/	/	/	/		
	110-126	15	14.03	134	12.5	11.28	/	/	/	/	/	/	/	/	/	/		
	134	12.5	11.83	151	18.3	17.28	/	/	/	/	/	/	/	/	/	/		
	151-159	15	14.11	159	17.8	16.93	/	/	/	/	/	/	/	/	/	/		
802.11ac -VHT80	42-58	9.5	8.82	802.11a c-VHT80	42-122	9.5	8.95	/	/	/	/	/	/	/	/	/		
	106-122	9.5	8.35	155	14.5	12.88	/	/	/	/	/	/	/	/	/	/		
802.11ac -VHT160	155	14.5	13.49	802.11a c-VHT160	50-114	9.5	8.6	/	/	/	/	/	/	/	/	/		
	50-114	9.5	8.86	/	/	/	/	/	/	/	/	/	/	/	/	/		

Note:

- 1)For FCC SAR test, Wi-Fi SAR test should be evaluated at the power level of FCC mobile country code for each exposure conditions of WIFI .
- 2)The detailed full power and reduced conducted power measurement results are provided in Section 9 of this report

5.3.8.3 Power reduction Specification of 2G&3G&4G Main antenna

The following tables summarize the key power reduction information of 2G/3G/4G main antenna. The detailed full power and reduced conducted power measurement results are provided in Section 9 of this report.

Band	Main antenna only															
	Receiver on		Receiver off													
			sensor off		sensor on*											
	/						Hotspot on									
	Full power	Hotspot on	Hotspot off	Hotspot on	Reduced Power Level D1&D2***	Reduced Power Level D3***	Reduced Power Level D4	Reduced Power Level D5	Reduced Power Level D7**	Reduced Power Level D8**	Reduced Power Level D1&D2***	Reduced Power Level D3***	Reduced Power Level D4	Reduced Power Level D5	Reduced Power Level D7**	Reduced Power Level D8**
GSM850	0	/	0	1	0	0	/	/	0	/	1	1	/	/	1	/
GSM1900	0	/	0	1	0	0	/	/	0	/	1	1	/	/	1	/
UMTS Band II	0	3	0	3.5	1	0	/	/	0	/	4.5	3.5	/	/	3.5	/
UMTS Band IV	0	3	0	3	1	0	/	/	0	/	4	3	/	/	3	/
UMTS Band V	0	1	0	1	0	0	/	/	0	/	1	1	/	/	1	/
LTE Band 2	0	2.5	0	2.5	0.5	0	/	/	0	/	3	2.5	/	/	2.5	/
LTE Band 4	0	2.5	0	2.5	1	0	/	/	0	/	3.5	2.5	/	/	2.5	/
LTE Band 5	0	1	0	1	0	0	/	/	0	/	1	1	/	/	1	/
LTE Band 7	0	3.5	0	3.5	2.5	1.5	/	/	0	/	6	5	/	/	3.5	/
LTE Band 12	0	0.5	0	0.5	0	0	/	/	0	/	0.5	0.5	/	/	0.5	/
LTE Band 17	0	0.5	0	0.5	0	0	/	/	0	/	0.5	0.5	/	/	0.5	/
LTE Band 26	0	1	0	1	0	0	/	/	0	/	1	1	/	/	1	/
LTE Band 38	0	2	0	2	1	0	/	/	0	/	3	2	/	/	2	/
LTE Band 41	0	1.5	0	1.5	0	0	/	/	0	/	1.5	1.5	/	/	1.5	/
LTE Band 66	0	2.5	0	2.5	0	0	/	/	0	/	2.5	2.5	/	/	2.5	/

Note:

- 1) * Reduced Power Level D4 or Reduced Power Level D5 is determined by different sensor Trigger Distance ranges when hotspot is off(Main antenna only);
- 2) ** Reduced Power Level D7 or Reduced Power Level D8 is determined by different sensor Trigger Distance range when hotspot is on;
- 3) *** Reduced Power Level D2 or Reduced Power Level D3 is determined by different sensor Trigger Distance range when Main antenna transmits simultaneously with WiFi Station/P2P
- 4) For some frequency bands, the power reduction level amount value 0 means there is no power reduction in this frequency band and exposure conditions. The power level is the same as full power.
- 5) Please refer to section 6.9.4 for detailed Proximity sensor power reduction test configuration and validation results per KDB616217.

5.3.9 Proximity sensor Configuration

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

The following tables summarize the key power reduction information for proximity sensor. The test procedures in KDB 616217 should be applied to determine proximity sensor triggering distances, and sensor coverage for normal and tilt positions. To ensure all production units are compliant, it is generally necessary to reduce the triggering distance determined from the triggering tests by 1 mm, or more if it is necessary, and use the smallest distance for movements to and from the phantom, minus 1 mm, as the sensor triggering distance for determining the SAR measurement distance.

Main antenna					
Band	Test position	Sensor Trigger Distance range (DUT to Phantom)	Power reduction amount(dB)	Max Power level(dBm)	Power level
UMTS Band II	Bottom side	$0\text{mm} \leq \text{distance} \leq 8\text{mm}$	1	24	Reduced Power Level D2
		$8\text{mm} < \text{distance}$	0	25	Reduced Power Level D7
	Back side	$0\text{mm} \leq \text{distance} \leq 5\text{mm}$	1	24	Reduced Power Level D2
		$5\text{mm} < \text{distance}$	0	25	Reduced Power Level D7
	Front side	$0\text{mm} \leq \text{distance} \leq 4\text{mm}$	1	24	Reduced Power Level D2
		$4\text{mm} < \text{distance}$	0	25	Reduced Power Level D7
	Left side	ALL	0	25	Reduced Power Level D7
	Right side	ALL	0	25	Reduced Power Level D7
Top side	ALL	0	25	Reduced Power Level D7	
UMTS Band IV	Bottom side	$0\text{mm} \leq \text{distance} \leq 8\text{mm}$	1	24	Reduced Power Level D2
		$8\text{mm} < \text{distance}$	0	25	Reduced Power Level D7
	Back side	$0\text{mm} \leq \text{distance} \leq 5\text{mm}$	1	24	Reduced Power Level D2
		$5\text{mm} < \text{distance}$	0	25	Reduced Power Level D7
	Front side	$0\text{mm} \leq \text{distance} \leq 4\text{mm}$	1	24	Reduced Power Level D2
		$4\text{mm} < \text{distance}$	0	25	Reduced Power Level D7
	Left side	ALL	0	25	Reduced Power Level D2
	Right side	ALL	0	25	Reduced Power Level D7
Top side	ALL	0	25	Reduced Power Level D7	
LTE B2	Bottom side	$0\text{mm} \leq \text{distance} \leq 8\text{mm}$	0.5	23.5	Reduced Power Level D2
		$8\text{mm} < \text{distance}$	0	24	Reduced Power Level D7
	Back side	$0\text{mm} \leq \text{distance} \leq 5\text{mm}$	0.5	23.5	Reduced Power Level D2
		$5\text{mm} < \text{distance}$	0	24	Reduced Power Level D7
	Front side	$0\text{mm} \leq \text{distance} \leq$	0.5	23.5	Reduced Power Level D2

		4mm			
		4mm<distance	0	24	Reduced Power Level D7
	Left side	ALL	0	24	Reduced Power Level D7
	Right side	ALL	0	24	Reduced Power Level D7
	Top side	ALL	0	24	Reduced Power Level D7
LTE B4	Bottom side	0mm≤distance≤8mm	0.5	23.5	Reduced Power Level D2
		8mm<distance	0	24	Reduced Power Level D7
	Back side	0mm≤distance≤5mm	0.5	23.5	Reduced Power Level D2
		5mm<distance	0	24	Reduced Power Level D7
	Front side	0mm≤distance≤4mm	0.5	23.5	Reduced Power Level D2
		4mm<distance	0	24	Reduced Power Level D7
	Left side	ALL	0	24	Reduced Power Level D7
	Right side	ALL	0	24	Reduced Power Level D7
	Top side	ALL	0	24	Reduced Power Level D7
	LTE B7	Bottom side	0mm≤distance≤8mm	2.5	21.5
8mm<distance≤12mm			1.5	22.5	Reduced Power Level D3
distance>12mm			0	24	Reduced Power Level D7
Back side		0mm≤distance≤5mm	2.5	21.5	Reduced Power Level D2
		5mm<distance≤8mm	1.5	22.5	Reduced Power Level D3
		distance>8mm	0	24	Reduced Power Level D7
Front side		0mm≤distance≤4mm	2.5	21.5	Reduced Power Level D2
		4mm<distance≤7mm	1.5	22.5	Reduced Power Level D3
		distance>7mm	0	24	Reduced Power Level D7
Left side		ALL	0	24	Reduced Power Level D7
Right side		ALL	0	24	Reduced Power Level D7
Top side		ALL	0	24	Reduced Power Level D7
LTE B38		Bottom side	0mm≤distance≤8mm	1	22.625
	8mm <distance		0	23.625	Reduced Power Level D7
	0mm≤distance≤5mm		1	22.625	Reduced Power Level D2
	Back side	5mm <distance	0	23.625	Reduced Power Level D7
		0mm≤distance≤4mm	1	22.625	Reduced Power Level D2
		4mm <distance	0	23.625	Reduced Power Level D7
	Front side	ALL	0	23.625	Reduced Power Level D7
		ALL	0	23.625	Reduced Power Level D7
		ALL	0	23.625	Reduced Power Level D7
	Left side	0mm≤distance≤8mm	1	22.625	Reduced Power Level D2
	Right side	8mm <distance	0	23.625	Reduced Power Level D7
	Top side	0mm≤distance≤5mm	1	22.625	Reduced Power Level D2

Note:

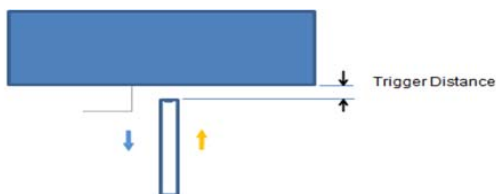
To ensure all production units are compliant, the smallest separation distance determined by the sensor triggering and sensor coverage for normal and tit positions for all usage conditions and applicable sides, minus 1 mm, must be used as the test separation distance for additional SAR testing of each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

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

1) Procedures for determining proximity sensor triggering distances

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

The Proximity sensor triggering distance measurement method are as below:



Picture: Proximity sensor triggering distances assessment Bottom Side



Picture: Proximity sensor triggering distances assessment Front Side and Back side

Table: Summary of Trigger Distances

Band	Reduced Power Level	Trigger distance- Bottom Side		Trigger distance- Back Side		Trigger distance- Front Side	
		Moving toward Phantom	Moving away from Phantom	Moving toward Phantom	Moving away from Phantom	Moving toward Phantom	Moving away from Phantom
UMTS Band II	Reduced Power Level D2	8mm	8mm	5mm	5mm	4mm	4mm
UMTS Band IV	Reduced Power Level D2	8mm	8mm	5mm	5mm	4mm	4mm
LTE Band 2	Reduced Power Level D2	8mm	8mm	5mm	5mm	4mm	4mm
LTE Band 4	Reduced Power Level D2	8mm	8mm	5mm	5mm	4mm	4mm
LTE Band 7	Reduced Power Level D2	8mm	8mm	5mm	5mm	4mm	4mm
	Reduced Power Level D3	12mm	12mm	8mm	8mm	7mm	7mm
LTE Band 38	Reduced Power Level D2	8mm	8mm	5mm	5mm	4mm	4mm

Note:

1) * The sensor Trigger Distance of Reduced Power Level D7 (WIFI hotspot on), Level D2 (Wi-Fi station on)

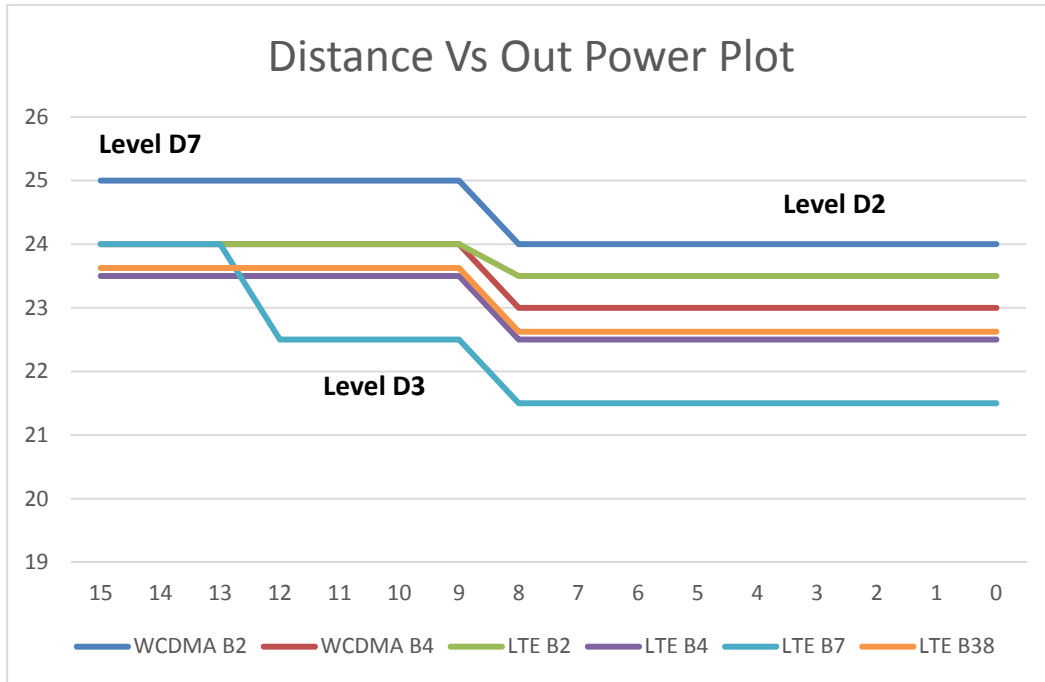
and Level D4 (WIFI hotspot off / WIFI station off, main antenna only) are the same.

2) * The sensor Trigger Distance of Reduced Power Level D8 (WIFI hotspot on), Level D3 (Wi-Fi station on) and Level D3 (WIFI hotspot off / WIFI station off, main antenna only) are the same.

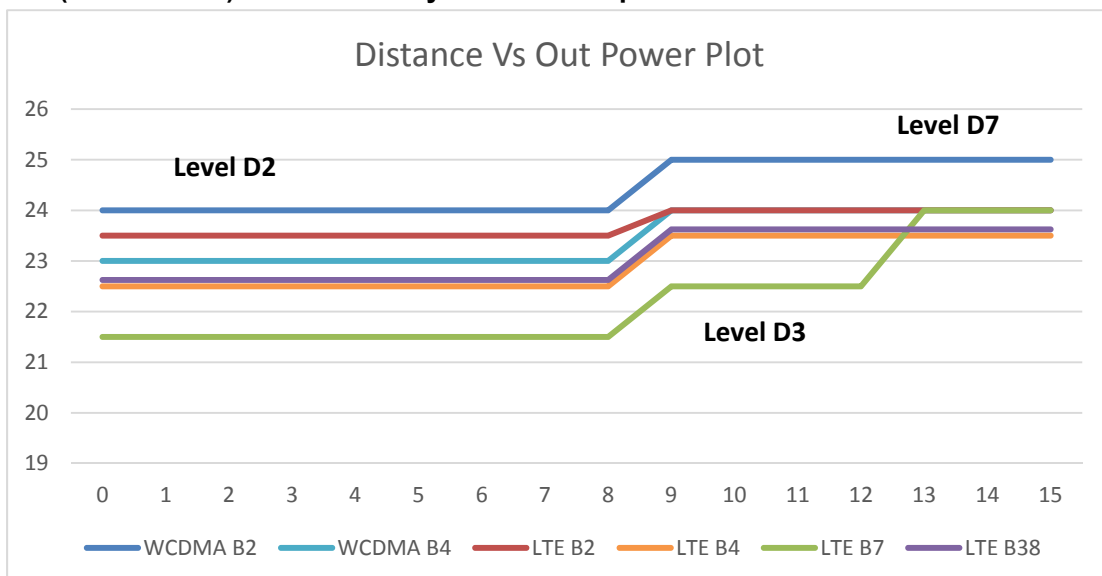
Conclusion: It can be ensured that the proximity sensor can be valid triggered for the body exposure condition in all required frequency bands (UMTS Band II/IV, LTE Band 2/4/7/38 with Main Antenna).

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

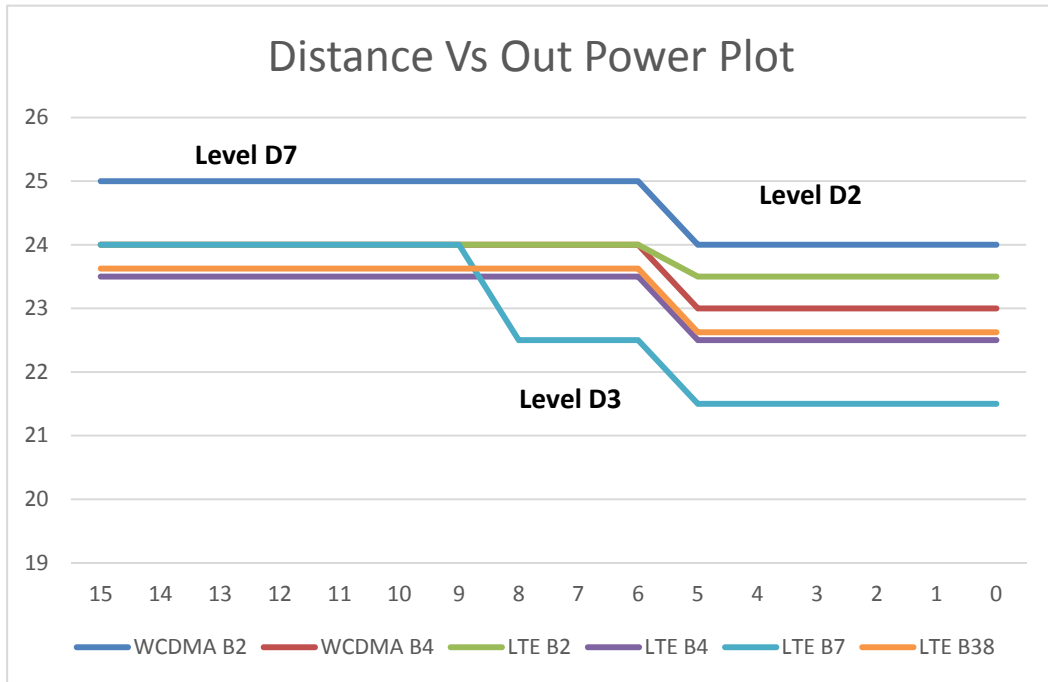
The DUT (bottom side) is moved towards the flat phantom:



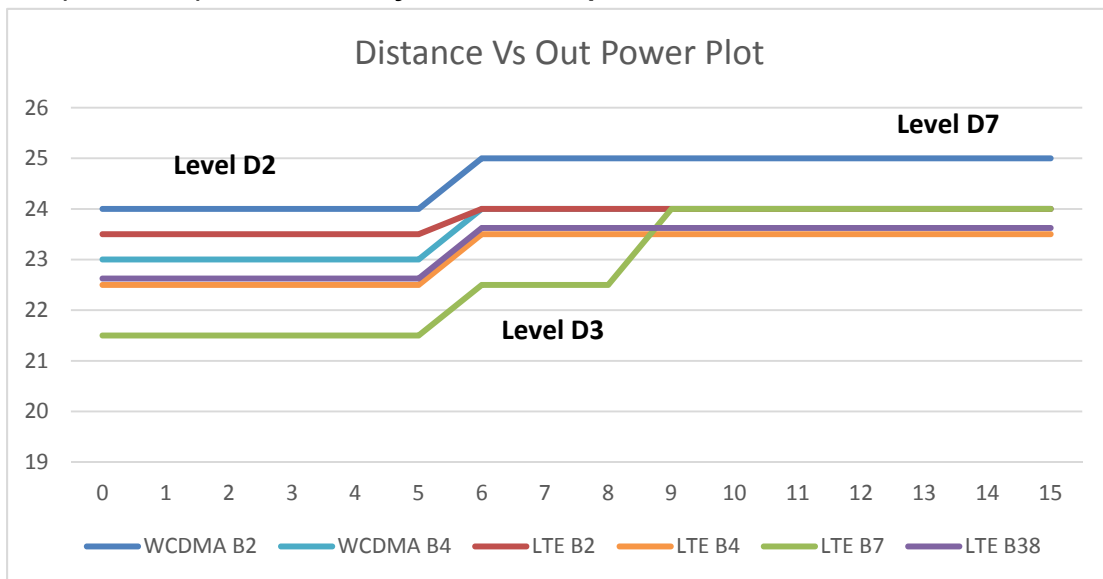
The DUT (bottom side) is moved away from the flat phantom:



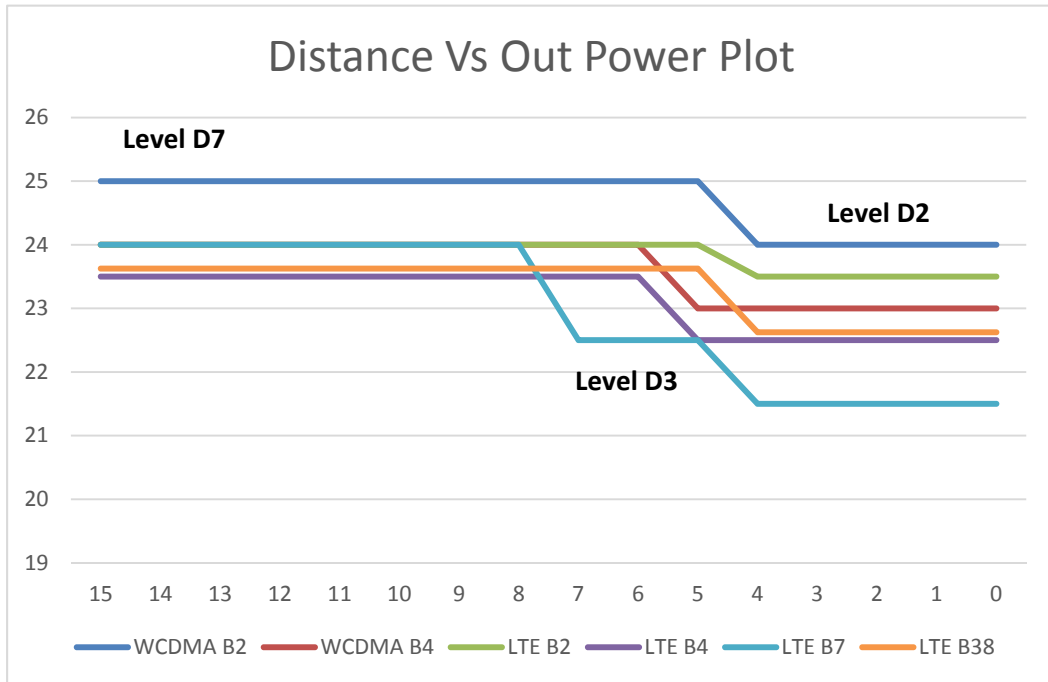
The DUT (Back side) is moved towards the flat phantom:



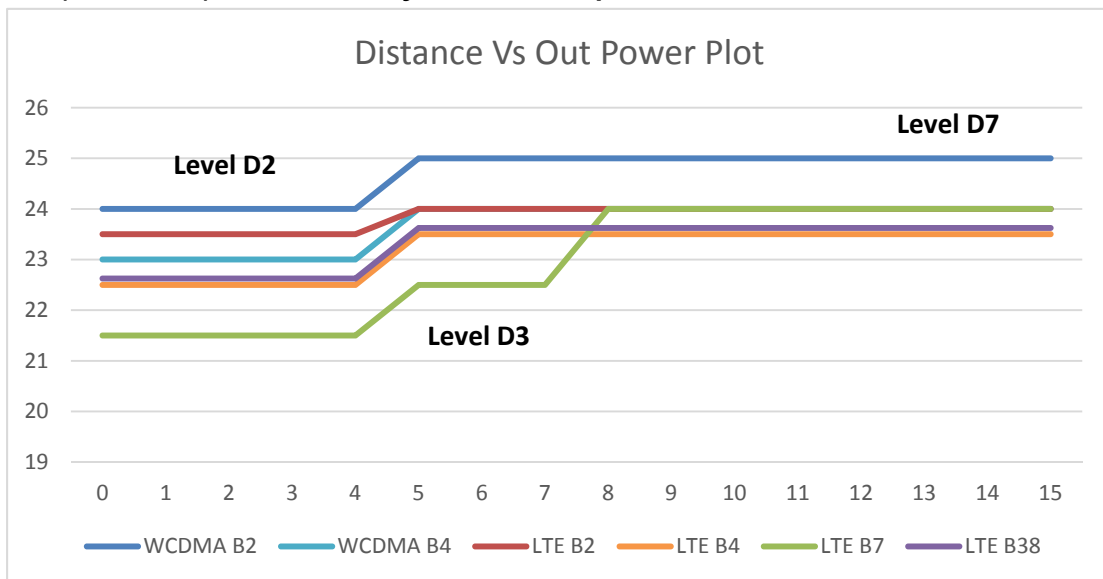
The DUT (back side) is moved away from the flat phantom:



The DUT (Front side) is moved towards the flat phantom:



The DUT (Front side) is moved away from the flat phantom:



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

Table: Reduced power (Moving toward phantom)

Band	Position	Power Reduction Status (dBm)												
		16	15	14	13	12	11	10	9	8	7	6	5	4
UMTS Band 2	bottom side	24.04	24.04	24.04	24.04	24.04	24.04	24.04	24.04	24.04	23.58	23.58	23.58	23.58
UMTS Band 4	bottom side	22.95	22.95	22.95	22.95	22.95	22.95	22.95	22.95	22.95	22.57	22.57	22.57	22.57
LTE Band 2	bottom side	23.18	23.18	23.18	23.18	23.18	23.18	23.18	23.18	23.18	22.97	22.97	22.97	22.97
LTE Band 4	bottom side	22.63	22.63	22.63	22.63	22.63	22.63	22.63	22.63	22.63	22.43	22.43	22.43	22.43
LTE Band 7	bottom side	23.26	23.26	23.26	23.26	23.26	21.69	21.69	21.69	21.69	21.1	21.1	21.1	21.1
LTE Band 38	bottom side	23.1	23.1	23.1	23.1	23.1	23.1	23.1	23.1	23.1	21.35	21.35	21.35	21.35
Band	Position	Power Reduction Status (dBm)												
		11	10	9	8	7	6	5	4	3	2	1		
UMTS Band 2	back side	24.04	24.04	24.04	24.04	24.04	24.04	24.04	24.04	23.58	23.58	23.58	23.58	
UMTS Band 4	back side	22.95	22.95	22.95	22.95	22.95	22.95	22.95	22.95	22.57	22.57	22.57	22.57	
LTE Band 2	back side	23.18	23.18	23.18	23.18	23.18	23.18	23.18	22.97	22.97	22.97	22.97		
LTE Band 4	back side	22.63	22.63	22.63	22.63	22.63	22.63	22.63	22.43	22.43	22.43	22.43		
LTE Band 7	back side	23.26	23.26	23.26	23.26	21.69	21.69	21.69	21.1	21.1	21.1	21.1		
LTE Band 38	back side	23.1	23.1	23.1	23.1	23.1	23.1	23.1	21.35	21.35	21.35	21.35		
Band	Position	Power Reduction Status (dBm)												
		11	10	9	8	7	6	5	4	3	2	1		
UMTS Band 2	front side	24.04	24.04	24.04	24.04	24.04	24.04	24.04	23.58	23.58	23.58	23.58		
UMTS Band 4	front side	22.95	22.95	22.95	22.95	22.95	22.95	22.95	22.57	22.57	22.57	22.57		
LTE Band 2	front side	23.18	23.18	23.18	23.18	23.18	23.18	23.18	22.97	22.97	22.97	22.97		
LTE Band 4	front side	22.63	22.63	22.63	22.63	22.63	22.63	22.63	22.43	22.43	22.43	22.43		
LTE Band 7	front side	23.26	23.26	23.26	23.26	23.26	21.69	21.69	21.69	21.1	21.1	21.1		
LTE Band 38	front side	23.1	23.1	23.1	23.1	23.1	23.1	23.1	21.35	21.35	21.35	21.35		

Table: Full power (Moving away from phantom)

Band	Position	Power Reduction Status (dBm)													
		4	5	6	7	8	9	10	11	12	13	14	15	16	
UMTS Band 2	bottom side	23.58	23.58	23.58	23.58	23.58	24.04	24.04	24.04	24.04	24.04	24.04	24.04	24.04	
UMTS Band 4	bottom side	22.57	22.57	22.57	22.57	22.57	22.95	22.95	22.95	22.95	22.95	22.95	22.95	22.95	
LTE Band 2	bottom side	22.97	22.97	22.97	22.97	22.97	23.18	23.18	23.18	23.18	23.18	23.18	23.18	23.18	
LTE Band 4	bottom side	22.43	22.43	22.43	22.43	22.43	22.63	22.63	22.63	22.63	22.63	22.63	22.63	22.63	
LTE Band 7	bottom side	21.1	21.1	21.1	21.1	21.1	21.69	21.69	21.69	21.69	23.26	23.26	23.26	23.26	
LTE Band 38	bottom side	21.35	21.35	21.35	21.35	21.35	23.1	23.1	23.1	23.1	23.1	23.1	23.1	23.1	
Band	Position	Power Reduction Status (dBm)													
		1	2	3	4	5	6	7	8	9	10	11			
UMTS Band 2	back side	23.58	23.58	23.58	23.58	23.58	24.04	24.04	24.04	24.04	24.04	24.04			
UMTS Band 4	back side	22.57	22.57	22.57	22.57	22.57	22.95	22.95	22.95	22.95	22.95	22.95			
LTE Band 2	back side	22.97	22.97	22.97	22.97	22.97	23.18	23.18	23.18	23.18	23.18	23.18			

LTE Band 4	back side	22.43	22.43	22.43	22.43	22.43	22.63	22.63	22.63	22.63	22.63	22.63
LTE Band 7	back side	21.1	21.1	21.1	21.1	21.1	21.69	21.69	21.69	23.26	23.26	23.26
LTE Band 38	back side	21.35	21.35	21.35	21.35	21.35	23.1	23.1	23.1	23.1	23.1	23.1
Band	Position	Power Reduction Status (dBm)										
		1	2	3	4	5	6	7	8	9	10	11
UMTS Band 2	front side	23.58	23.58	23.58	23.58	23.58	24.04	24.04	24.04	24.04	24.04	24.04
UMTS Band 4	front side	22.57	22.57	22.57	22.57	22.57	22.95	22.95	22.95	22.95	22.95	22.95
LTE Band 2	front side	22.97	22.97	22.97	22.97	22.97	23.18	23.18	23.18	23.18	23.18	23.18
LTE Band 4	front side	22.43	22.43	22.43	22.43	22.43	22.63	22.63	22.63	22.63	22.63	22.63
LTE Band 7	front side	21.1	21.1	21.1	21.1	21.69	21.69	21.69	23.26	23.26	23.26	23.26
LTE Band 38	front side	21.35	21.35	21.35	21.35	21.35	23.1	23.1	23.1	23.1	23.1	23.1

2) Procedures for determining antenna and proximity sensor coverage

According to the antenna and sensors location figure: Proximity sensor pad does not fully cover the 2G/3G/4G main antenna. So the proximity sensor coverage need to be assessed for the frequency bands and test positions supporting proximity sensor power reduction per KDB 616217:

a) All the sides/edges (bottom side, front side and back side of the device) is positioned at a test separation distance less than or equal to the distance required for sensor triggering, with both the antenna and sensor pad located at least 20 mm laterally outside the edge (boundary) of the phantom, along the direction of maximum antenna and sensor offset.

Each applicable edge should be positioned perpendicularly to the phantom to determine sensor coverage. For antennas and/or sensors located near the corner of a tablet, both adjacent edges must be considered.

b) The similar sequence of steps applied to determine sensor triggering distance are used to verify the sensor coverage by moving the DUT(sensor and antenna) horizontally toward the phantom while maintaining the same vertical separation between the side or edge and the phantom.

c) After the exact location where triggering of power reduction is determined, with respect to the sensor and antenna, the DUT movement should be continued, in 3 mm increments, until both the sensor and antenna(s) are fully under the phantom and at least 20 mm inside the phantom edge.

d) The process is then repeated from the opposite direction, starting at the other end of the maximum antenna and sensor offset, by rotating the DUT 180 along the vertical axis.

e) The triggering points should be documented graphically, with the antenna and sensor clearly identified, along with all relevant dimensions.

f) If the subsequently measured peak SAR location for the antenna is not between the triggering points, established by the sensor coverage tests from opposite ends of the antenna and sensor, additional SAR tests may be required for conditions where only part of the surface or edge of the DUT corresponding to the antenna is in proximity to the user and the sensor may not be triggering as desired. The proximity sensor coverage measurement method are as below.

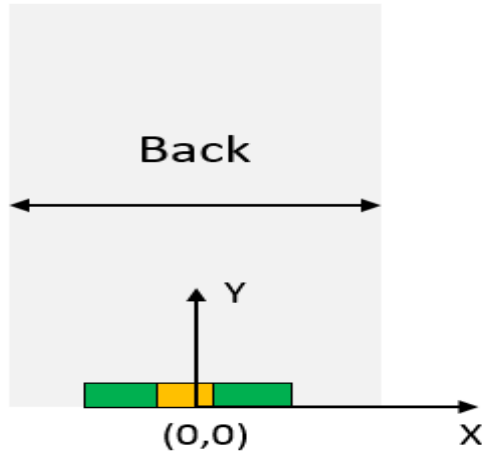


Figure: Plane coordinate system definition on the DUT

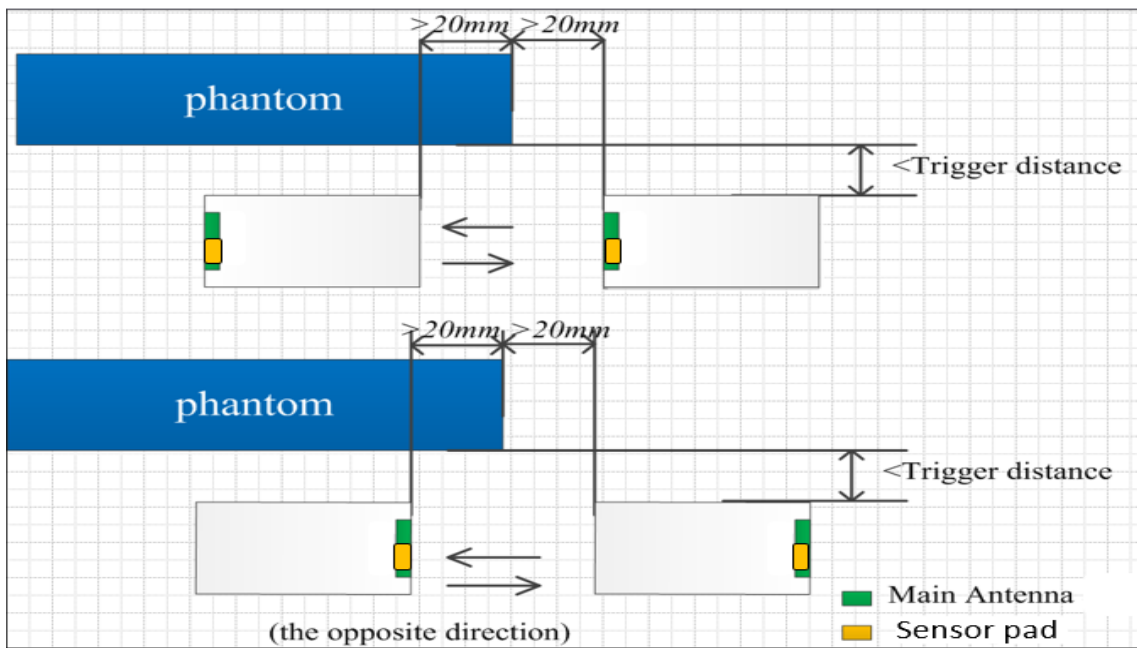


Figure: proximity sensor coverage assesment (Y coordinate direction)

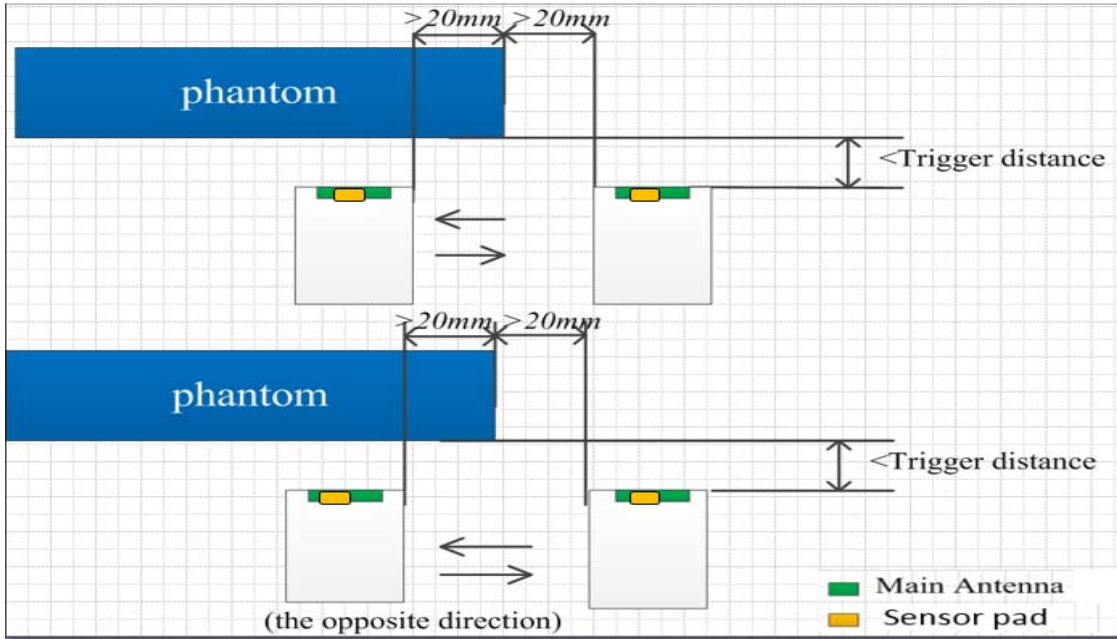
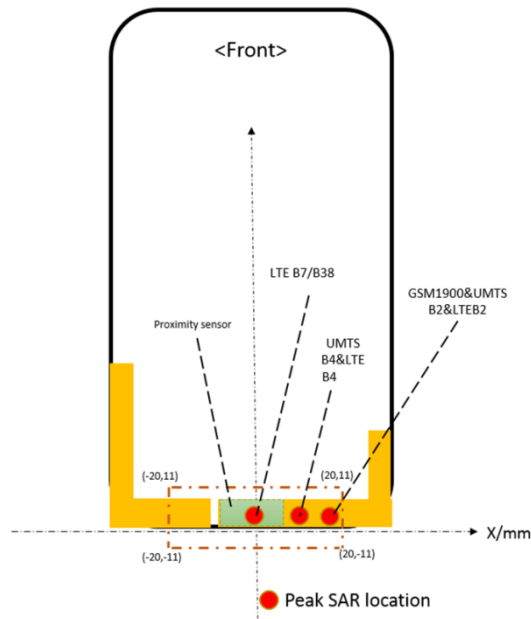
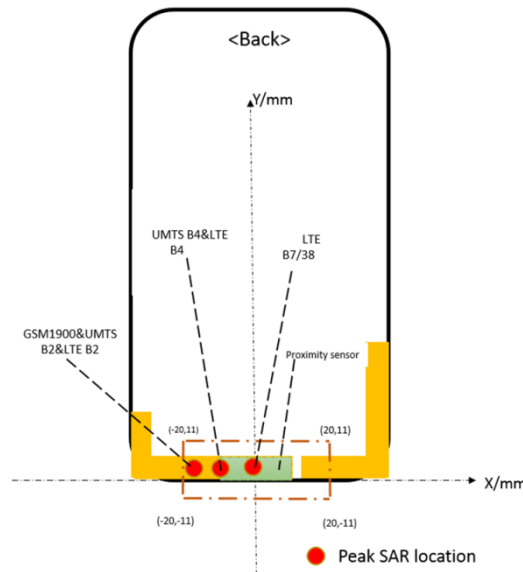


Figure: proximity sensor coverage assesment (X coordinate direction)

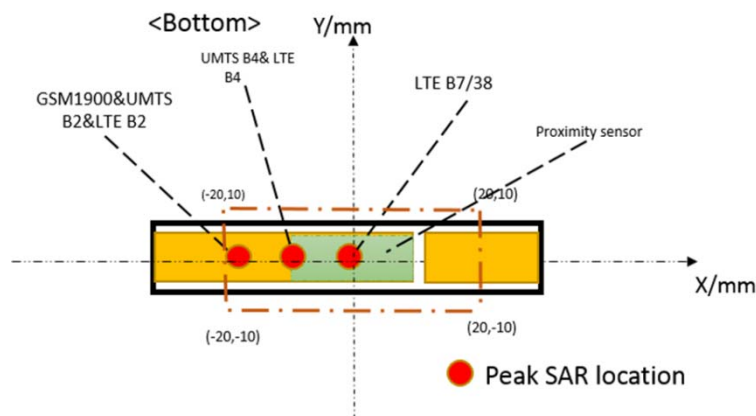
sensor coverage assesment results(Front side):



sensor coverage assesment results(Back side):



sensor coverage assesment results(Bottom side):



Conclusion: As the subsequently measured peak SAR location for the antenna is between the triggering points, additional SAR tests are not required for proximity sensor coverage per KDB 616217.

3) Procedures for determining device tilt angle influences to proximity sensor triggering

The DUT was positioned directly below the flat phantom with/without protective cover at the minimum measured trigger distance with Bottom side parallel to the base of the flat phantom with/without protective cover for each band.

The DUT was rotated about Bottom side for angles up to +/- 45°. If the output power increased during the rotation the DUT was moved 1mm toward the phantom and the rotation repeated. This procedure was repeated until the power remained reduced for all angles up to +/- 45°.

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

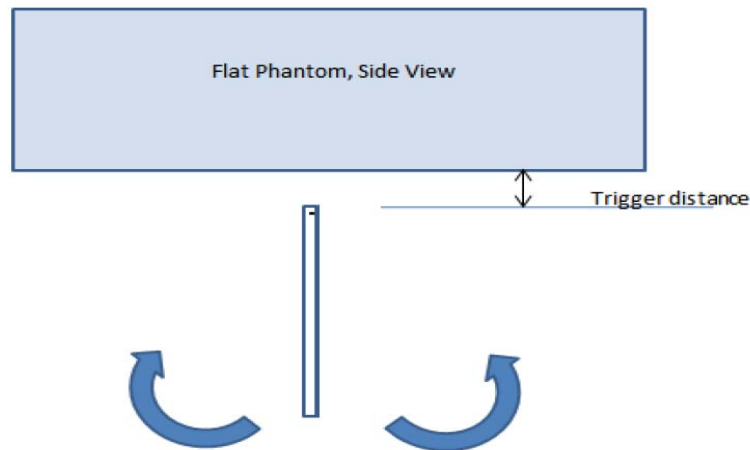


Table: Summary of Device Tilt Angle Influence to Proximity Sensor Triggering (Bottom side)

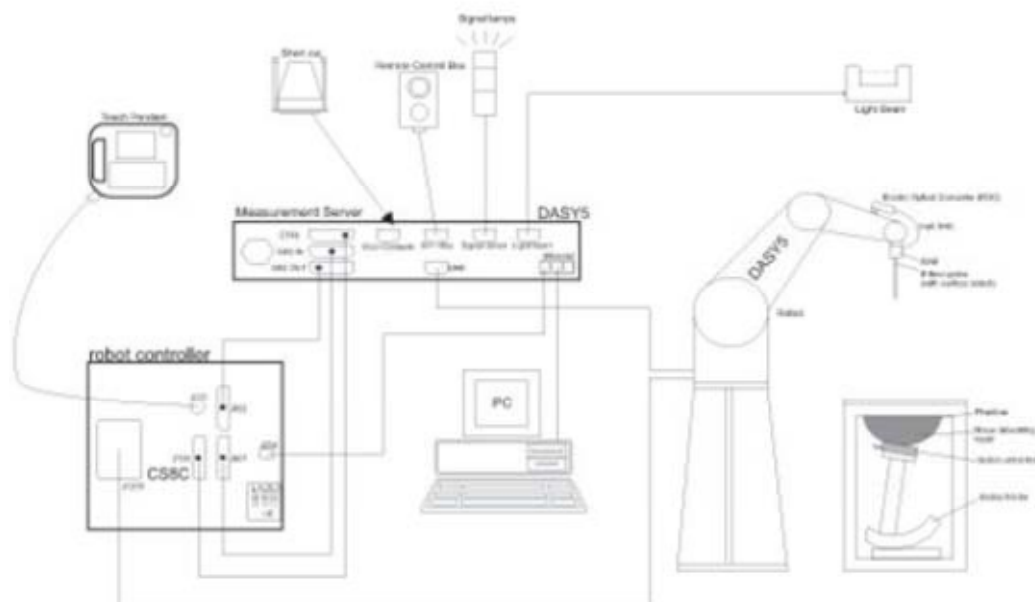
Band(MHz)	Minimum trigger distance at reduction was maintained over±45°	Power Reduction Status											
		-45°	-35°	-25°	-15°	-5°	0°	5°	15°	25°	35°	45°	
UMTS Band II	8mm	on	on	on	on	on	on	on	on	on	on	on	on
UMTS Band IV	8mm	on	on	on	on	on	on	on	on	on	on	on	on
LTE Band 2	8mm	on	on	on	on	on	on	on	on	on	on	on	on
LTE Band 4	8mm	on	on	on	on	on	on	on	on	on	on	on	on
LTE Band 7	8mm/12mm	on	on	on	on	on	on	on	on	on	on	on	on
LTE Band 38	8mm	on	on	on	on	on	on	on	on	on	on	on	on

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

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 DASYS E-field Probe System

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

EX3DV4 Probe Specification

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



E-field Probe Calibration

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

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

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

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

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.

	≤ 3 GHz	> 3 GHz
Maximum distance from closest measurement point (geometric center of probe sensors) to phantom surface	5 ± 1 mm	$\frac{1}{2} \cdot \delta \cdot \ln(2) \pm 0.5$ mm
Maximum probe angle from probe axis to phantom surface normal at the measurement location	$30^\circ \pm 1^\circ$	$20^\circ \pm 1^\circ$
Maximum area scan spatial resolution: Δx_{Area} , Δy_{Area}	≤ 2 GHz: ≤ 15 mm $2 - 3$ GHz: ≤ 12 mm	$3 - 4$ GHz: ≤ 12 mm $4 - 6$ GHz: ≤ 10 mm
	When the x or y dimension of the test device, in the measurement plane orientation, is smaller than the above, the measurement resolution must be \leq the corresponding x or y dimension of the test device with at least one measurement point on the test device.	

Zoom Scan

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

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

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

Volume Scan Procedures

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

Power Drift Monitoring

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

7 Main Test Equipment

Name of Equipment	Manufacturer	Type/Model	Serial Number	Last Cal.	Cal. Due Date
Network analyzer	Agilent	E5071B	MY42404014	2018-05-20	2019-05-19
Dielectric Probe Kit	HP	85070E	US44020115	2018-05-20	2019-05-19
Power meter	Agilent	E4417A	GB41291714	2018-05-21	2019-05-20
Power sensor	Agilent	N8481H	MY50350004	2018-05-21	2019-05-20
Power sensor	Agilent	E9327A	US40441622	2018-05-20	2019-05-19
Dual directional coupler	Agilent	778D-012	50519	2018-05-21	2019-05-20
Dual directional coupler	Agilent	777D	50146	2018-05-20	2019-05-19
Amplifier	INDEXSAR	IXA-020	0401	2018-05-20	2019-05-19
Wideband radio communication tester	R&S	CMW 500	113645	2018-05-20	2019-05-19
Wideband radio communication tester	R&S	CMW 500	150415	2018-05-20	2019-05-19
BT Base Station Simulator	R&S	CBT	100271	2018-05-14	2019-05-13
E-field Probe	SPEAG	EX3DV4	3677	2018-05-29	2019-05-28
DAE	SPEAG	DAE4	1291	2018-12-04	2019-12-03
Validation Kit 750MHz	SPEAG	D750V3	1045	2017-08-27	2020-08-26
Validation Kit 835MHz	SPEAG	D835V2	4d020	2017-08-28	2020-08-27
Validation Kit 1750MHz	SPEAG	D1750V2	1033	2017-01-10	2020-01-09
Validation Kit 1900MHz	SPEAG	D1900V2	5d060	2017-08-26	2020-08-25
Validation Kit 2450MHz	SPEAG	D2450V2	786	2017-08-29	2020-08-28
Validation Kit 2600MHz	SPEAG	D2600V2	1025	2018-05-02	2021-05-01
Validation Kit 5GHz	SPEAG	D5GHzV2	1151	2017-01-05	2020-01-04
Temperature Probe	Tianjin jinming	JM222	AA1009129	2018-05-17	2019-05-16
Hygrothermograph	Anymetr	NT-311	20150731	2018-05-17	2019-05-16
Software for Test	Speag	DASY5	52.8.8.1222	/	/
Softwarefor Tissue	Agilent	85070	E06.01.36	/	/

8 Tissue Dielectric Parameter Measurements & System Verification

8.1 Tissue Verification

The temperature of the tissue-equivalent medium used during measurement must also be within 18°C to 25°C and within $\pm 2^\circ\text{C}$ of the temperature when the tissue parameters are characterized. The dielectric parameters must be measured before the tissue-equivalent medium is used in a series of SAR measurements. The parameters should be re-measured after each 3 – 4 days of use; or earlier if the dielectric parameters can become out of tolerance.

Target values

Frequency (MHz)	Water (%)	Salt (%)	Sugar (%)	Glycol (%)	Preventol (%)	Cellulose (%)	ϵ_r	$\sigma(\text{s/m})$	
Head	750	41.448	1.452	56	0	0.1	1.0	41.9	0.89
	835	41.45	1.45	56	0	0.1	1.0	41.5	0.90
	1750	55.24	0.31	0	44.45	0	0	40.1	1.37
	1900	55.242	0.306	0	44.452	0	0	40.0	1.40
	2450	62.7	0.5	0	36.8	0	0	39.2	1.80
	2600	55.242	0.306	0	44.452	0	0	39.0	1.96
Body	750	52.49	1.41	45	0	0.1	1.0	55.5	0.96
	835	52.5	1.4	45	0	0.1	1.0	55.2	0.97
	1750	69.91	0.12	0	29.97	0	0	53.4	1.49
	1900	69.91	0.13	0	29.96	0	0	53.3	1.52
	2450	73.2	0.1	0	26.7	0	0	52.7	1.95
	2600	72.6	0.1	0	27.3	0	0	52.5	2.16
Frequency (MHz)	Water (%)	Diethylenglycol monohexylether			Triton X-100		ϵ_r	$\sigma(\text{s/m})$	
Head	5250	65.53	17.24			17.23		35.9	4.71
	5600	65.53	17.24			17.23		35.5	5.07
	5750	65.53	17.24			17.23		35.4	5.22
Body	5250	72.52	13.74			13.74		48.9	5.36
	5600	72.52	13.74			13.74		48.5	5.77
	5750	72.52	13.74			13.74		48.3	5.94

Measurements results

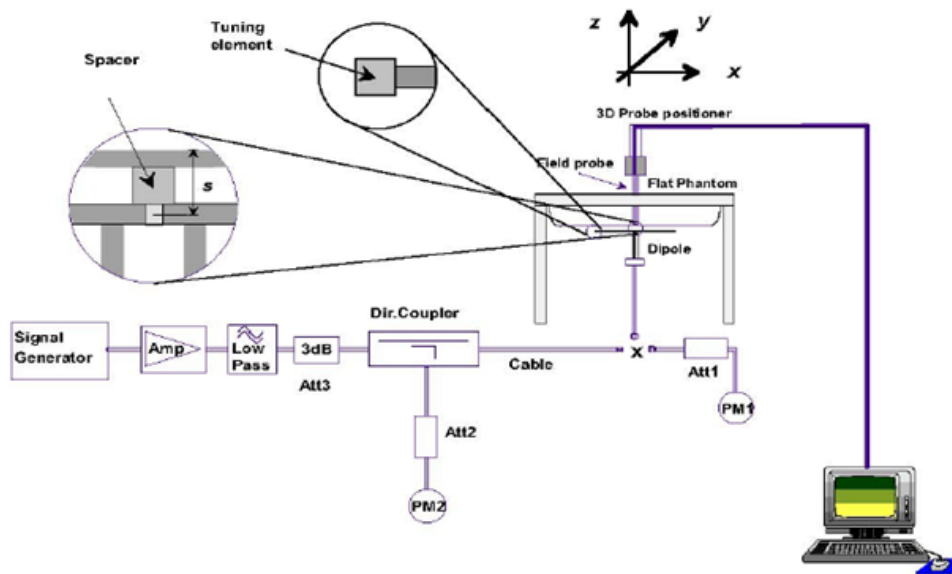
Frequency (MHz)	Test Date	Temp °C	Measured Dielectric Parameters		Target Dielectric Parameters		Limit (Within ±5%)		
			ϵ_r	σ (s/m)	ϵ_r	σ (s/m)	Dev ϵ_r (%)	Dev σ (%)	
750	Head	2019/4/15	21.5	42.3	0.88	41.9	0.89	0.95	-1.12
		2019/4/23	21.5	42.0	0.87	41.9	0.89	0.24	-2.25
	Body	2019/4/15	21.5	56.9	0.95	55.5	0.96	2.52	-1.04
		2019/4/23	21.5	54.5	0.96	55.5	0.96	-1.80	0.00
835	Head	2019/4/20	21.5	41.4	0.88	41.5	0.90	-0.24	-2.22
		2019/4/27	21.5	41.3	0.87	41.5	0.90	-0.48	-3.33
	Body	2019/4/21	21.5	54.2	0.96	55.2	0.97	-1.81	-1.03
		2019/4/24	21.5	54.6	0.95	55.2	0.97	-1.09	-2.06
1750	Head	2019/4/17	21.5	40.2	1.34	40.1	1.37	0.25	-2.19
		2019/4/22	21.5	40.1	1.34	40.1	1.37	0.00	-2.19
	Body	2019/4/14	21.5	51.9	1.46	53.4	1.49	-2.81	-2.01
		2019/4/18	21.5	52.5	1.51	53.4	1.49	-1.69	1.34
1900	Head	2019/4/20	21.5	40.1	1.41	40.0	1.40	0.25	0.71
		2019/4/27	21.5	40.2	1.43	40.0	1.40	0.50	2.14
	Body	2019/4/19	21.5	52.6	1.51	53.3	1.52	-1.31	-0.66
		2019/4/25	21.5	52.8	1.51	53.3	1.52	-0.94	-0.66
2450	Head	2019/4/29	21.5	38.8	1.80	39.2	1.80	-1.02	0.00
	Body	2019/4/28	21.5	52.6	1.97	52.7	1.95	-0.19	1.03
		2019/4/29	21.5	52.5	1.98	52.7	1.95	-0.38	1.54
2600	Head	2019/4/16	21.5	38.2	2.01	39.0	1.96	-2.05	2.55
		2019/4/17	21.5	38.4	1.94	39.0	1.96	-1.54	-1.02
		2019/4/18	21.5	38.3	1.99	39.0	1.96	-1.79	1.53
	Body	2019/4/13	21.5	51.5	2.23	52.5	2.16	-1.90	3.24
		2019/4/16	21.5	51.7	2.21	52.5	2.16	-1.52	2.31
		2019/4/25	21.5	51.5	2.24	52.5	2.16	-1.90	3.70
5250	Head	2019/4/19	21.5	35.5	4.80	35.9	4.71	-1.11	1.91
		2019/4/28	21.5	35.4	4.80	35.9	4.71	-1.39	1.91
	Body	2019/4/30	21.5	48.1	5.32	48.9	5.36	-1.64	-0.75
		2019/5/1	21.5	47.9	5.33	48.9	5.36	-2.04	-0.56
5600	Head	2019/4/22	21.5	34.2	5.21	35.5	5.07	-3.66	2.76
	Body	2019/4/30	21.5	47.9	5.78	48.5	5.77	-1.24	0.17
		2019/5/1	21.5	48.0	5.77	48.5	5.77	-1.03	0.00
5750	Head	2019/5/2	21.5	34.9	5.21	35.4	5.22	-1.41	-0.19

	Body	2019/5/2	21.5	47.6	6.14	48.3	5.94	-1.45	3.37
		2019/5/3	21.5	47.6	6.13	48.3	5.94	-1.45	3.20
<p>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.</p>									

8.2 System Performance Check

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

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



Picture 1 System Performance Check setup



Picture 2 Setup Photo

Justification for Extended SAR Dipole Calibrations

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

Dipole		Date of Measurement	Return Loss(dB)	Δ %	Impedance (Ω)	$\Delta\Omega$
Dipole D750V3 SN: 1045	Head	8/27/2017	-28.5	/	52.5	/
	Liquid	8/26/2018	-27.6	3.36	53.2	0.7
	Body	8/27/2017	-24.2	/	47.5	/
	Liquid	8/26/2018	-24.0	0.83	45.6	1.9
Dipole D835V2 SN: 4d020	Head	8/28/2017	-31.9	/	50.3	/
	Liquid	8/27/2018	-29.0	9.09	46.6	-3.7
	Body	8/28/2017	-24.8	/	46.8	/
	Liquid	8/27/2018	-27.4	-10.48	48.1	1.3
Dipole D1750V2 SN: 1033	Head	1/10/2017	-40.3	/	49.8	/
	Liquid	1/9/2018	-40.0	0.74	49.9	0.1
		1/8/2019	-40.2	-0.50	49.6	0.3
		1/10/2017	-35.0	/	44.7	/
	Body Liquid	1/9/2018	-34.7	0.86	44.9	-0.2
		1/8/2019	-35.2	-1.44	44.6	0.3
Head		8/26/2017	-23.4	/	52.0	/
Dipole D1900V2 SN: 5d060	Liquid	8/25/2018	-24.7	-5.56	54.4	2.4
	Body Liquid	8/26/2017	-21.4	/	52.7	/
		8/25/2018	-24.6	-14.95	55.6	2.9
		8/29/2017	-25.5	/	53.4	/
Dipole D2450V2 SN: 786	Liquid	8/28/2018	-23.0	9.80	57.2	3.8
	Body Liquid	8/29/2017	-23.6	/	51.0	/
		8/28/2018	-23.7	-0.42	55.2	4.2
		1/5/2017	-24.5	/	48.4	/
Dipole D5GHzV2 SN: 1151 (5250MHz)	Head Liquid	1/4/2018	-23.8	2.86	50.0	1.6
		1/3/2019	-24.3	-2.10	49.3	0.7
		1/5/2017	-24.7	/	50.4	/
	Body Liquid	1/4/2018	-23.8	3.64	50.0	0.4
		1/3/2019	-23.4	1.68	50.4	-0.4
		1/5/2017	-22.8	/	55.5	/
Dipole D5GHzV2 SN: 1151 (5600MHz)	Head Liquid	1/4/2018	-21.5	5.70	55.6	0.1
		1/3/2019	-21.8	-1.40	55.3	0.3
		1/5/2017	-23.3	/	57.2	/
	Body Liquid	1/4/2018	-22.5	3.43	55.6	1.6
		1/3/2019	-22.8	-1.33	56.4	-0.8
		1/5/2017	-26.5	/	52.4	/
Dipole D5GHzV2 SN: 1151 (5750MHz)	Head Liquid	1/4/2018	-26.8	-1.13	52.5	0.1
		1/3/2019	-26.9	-0.37	52.1	0.4
		1/5/2017	-24.9	/	56.0	/
	Body Liquid	1/4/2018	-25.2	-1.20	56.4	-0.4
		1/3/2019	-25.7	-1.98	56.7	-0.3

System Check results

Frequency (MHz)	Test Date	Temp °C	250mW /100mW Measured SAR _{1g} (W/kg)	1W Normalized SAR _{1g} (W/kg)	1W Target SAR _{1g} (W/kg)	Δ % (Limit± 10%)	Plot No.	
750	Head	2019/4/15	21.5	2.13	8.52	8.34	2.16	1
		2019/4/23	21.5	2.10	8.40	8.34	0.72	2
	Body	2019/4/15	21.5	2.22	8.88	8.78	1.14	3
		2019/4/23	21.5	2.17	8.68	8.78	-1.14	4
835	Head	2019/4/20	21.5	2.44	9.76	9.45	3.28	5
		2019/4/27	21.5	2.46	9.84	9.45	4.13	6
	Body	2019/4/21	21.5	2.41	9.64	9.75	-1.13	7
		2019/4/24	21.5	2.42	9.68	9.75	-0.72	8
1750	Head	2019/4/17	21.5	8.95	35.80	37.20	-3.76	9
		2019/4/22	21.5	9.11	36.44	37.20	-2.04	10
	Body	2019/4/14	21.5	9.24	36.96	37.60	-1.70	11
		2019/4/18	21.5	9.40	37.60	37.60	0.00	12
1900	Head	2019/4/20	21.5	9.88	39.52	40.10	-1.45	13
		2019/4/27	21.5	9.85	39.40	40.10	-1.75	14
	Body	2019/4/19	21.5	9.93	39.72	39.50	0.56	15
		2019/4/25	21.5	9.91	39.64	39.50	0.35	16
2450	Head	2019/4/29	21.5	13.66	54.64	52.60	3.88	17
	Body	2019/4/28	21.5	12.52	50.08	50.80	-1.42	18
		2019/4/29	21.5	12.50	50.00	50.80	-1.57	19
2600	Head	2019/4/16	21.5	13.90	55.60	54.10	2.77	20
		2019/4/17	21.5	13.88	55.52	54.10	2.62	21
		2019/4/18	21.5	13.94	55.76	54.10	3.07	22
	Body	2019/4/13	21.5	13.50	54.00	54.50	-0.92	23
		2019/4/16	21.5	13.55	54.20	54.50	-0.55	24
		2019/4/25	21.5	13.66	54.64	54.50	0.26	25
		2019/4/26	21.5	13.64	54.56	54.50	0.11	26
5250	Head	2019/4/19	21.5	7.87	78.70	78.40	0.38	27
		2019/4/28	21.5	7.85	78.50	78.40	0.13	28
	Body	2019/4/30	21.5	7.46	74.60	75.60	-1.32	29
		2019/5/1	21.5	7.44	74.40	75.60	-1.59	30
5600	Head	2019/4/22	21.5	7.67	76.70	81.50	-5.89	31
	Body	2019/4/30	21.5	8.10	81.00	80.20	1.00	32
		2019/5/1	21.5	8.13	81.30	80.20	1.37	33

5750	Head	2019/5/2	21.5	7.66	76.60	80.50	-4.84	34
	Body	2019/5/2	21.5	7.15	71.50	74.60	-4.16	35
		2019/5/3	21.5	7.21	72.10	74.60	-3.35	36

Note: Target Values used derive from the calibration certificate Data Storage and Evaluation.

9 Normal and Maximum Output Power

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

9.1 GSM Mode

Main- Antenna

GSM 850 (Receiver on) (Receiver off+SAR sensor on Level D1&D2) (Receiver off+SAR sensor on Level D3) (Receiver off+SAR sensor on Level D7) (sensor off+hotspot off)		Burst-Averaged output power(dBm)				Division Factors	Frame-Averaged output power(dBm)			
		Tune-up	Channel/Frenqucy(MHz)				Tune-up	Channel/Frenqucy(MHz)		
		MAX	128 /824.2	190 /836.6	251 /848.8		MAX	128 /824.2	190 /836.6	251 /848.8
GSM	CS	33.80	32.94	32.76	32.77	9.03	24.77	23.91	23.73	23.74
GPRS/ EGPRS (GMSK)	1 Tx Slot	33.80	32.97	32.72	32.77	9.03	24.77	23.94	23.69	23.74
	2 Tx Slots	31.80	30.24	30.41	30.43	6.02	25.78	24.22	24.39	24.41
	3 Tx Slots	29.80	28.07	28.20	28.06	4.26	25.54	23.81	23.94	23.80
	4 Tx Slots	27.80	25.82	25.85	25.89	3.01	24.79	22.81	22.84	22.88
EGPRS (8PSK)	1 Tx Slot	27.50	26.68	26.54	26.49	9.03	18.47	17.65	17.51	17.46
	2 Tx Slots	25.50	23.97	24.05	23.91	6.02	19.48	17.95	18.03	17.89
	3 Tx Slots	23.50	21.84	21.93	21.90	4.26	19.24	17.58	17.67	17.64
	4 Tx Slots	21.50	19.82	19.84	19.73	3.01	18.49	16.81	16.83	16.72
GSM 850 (Hotspot on+ Receiver off+SAR sensor on Level D1&D2) (Hotspot on+ Receiver off+SAR sensor on Level D3) (Hotspot on+ Receiver off+SAR sensor on Level D7) (sensor off+hotspot off)		Burst-Averaged output power(dBm)				Division Factors	Frame-Averaged output power(dBm)			
		Tune-up	Channel/Frenqucy(MHz)				Tune-up	Channel/Frenqucy(MHz)		
		MAX	128 /824.2	190 /836.6	251 /848.8		MAX	128 /824.2	190 /836.6	251 /848.8
GSM	CS	32.80	31.58	31.71	31.72	9.03	23.77	22.55	22.68	22.69
GPRS/ EGPRS (GMSK)	1 Tx Slot	32.80	31.62	31.75	31.65	9.03	23.77	22.59	22.72	22.62
	2 Tx Slots	30.80	29.38	29.48	29.54	6.02	24.78	23.36	23.46	23.52
	3 Tx Slots	28.80	27.19	27.33	27.36	4.26	24.54	22.93	23.07	23.10
	4 Tx Slots	26.80	24.93	24.97	25.01	3.01	23.79	21.92	21.96	22.00

EGPRS (8PSK)	1 Tx Slot	26.50	25.07	25.21	25.18	9.03	17.47	16.04	16.18	16.15
	2 Tx Slots	24.50	23.09	23.19	23.16	6.02	18.48	17.07	17.17	17.14
	3 Tx Slots	22.50	20.98	21.14	21.07	4.26	18.24	16.72	16.88	16.81
	4 Tx Slots	20.50	19.17	19.20	19.22	3.01	17.49	16.16	16.19	16.21
GSM 1900 (Receiver on) (Receiver off+SAR sensor on Level D1&D2) (Receiver off+SAR sensor on Level D3) (Receiver off+SAR sensor on Level D7) (sensor off+hotspot off)		Burst-Averaged output power(dBm)				Division Factors	Frame-Averaged output power(dBm)			
		Tune-up	Channel/Frenqucy(MHz)				Tune-up	Channel/Frenqucy(MHz)		
		MAX	512 /1850.2	661 /1880	810 /1909.8		MAX	512 /1850.2	661 /1880	810 /1909.8
GSM	CS	30.80	30.11	30.34	30.47	9.03	21.77	21.08	21.31	21.44
GPRS/ EGPRS (GMSK)	1 Tx Slot	30.80	30.14	30.43	30.56	9.03	21.77	21.11	21.40	21.53
	2 Tx Slots	28.80	28.05	28.24	28.29	6.02	22.78	22.03	22.22	22.27
	3 Tx Slots	26.80	25.90	26.13	26.02	4.26	22.54	21.64	21.87	21.76
	4 Tx Slots	24.80	23.80	24.01	24.06	3.01	21.79	20.79	21.00	21.05
EGPRS (8PSK)	1 Tx Slot	26.50	25.36	25.14	25.48	9.03	17.47	16.33	16.11	16.45
	2 Tx Slots	24.50	23.19	22.95	23.34	6.02	18.48	17.17	16.93	17.32
	3 Tx Slots	22.50	20.89	20.77	20.85	4.26	18.24	16.63	16.51	16.59
	4 Tx Slots	20.50	18.87	18.76	18.95	3.01	17.49	15.86	15.75	15.94
GSM 1900 (Hotspot on+ Receiver off+SAR sensor on Level D1&D2) (Hotspot on+ Receiver off+SAR sensor on Level D3) (Hotspot on+ Receiver off+SAR sensor on Level D7) (sensor off+hotspot on)		Burst-Averaged output power(dBm)				Division Factors	Frame-Averaged output power(dBm)			
		Tune-up	Channel/Frenqucy(MHz)				Tune-up	Channel/Frenqucy(MHz)		
		MAX	512 /1850.2	661 /1880	810 /1909.8		MAX	512 /1850.2	661 /1880	810 /1909.8
GSM	CS	29.80	29.10	29.33	29.42	9.03	20.77	20.07	20.30	20.39
GPRS/ EGPRS (GMSK)	1 Tx Slot	29.80	29.20	29.43	29.45	9.03	20.77	20.17	20.40	20.42
	2 Tx Slots	27.80	27.01	27.22	27.26	6.02	21.78	20.99	21.20	21.24
	3 Tx Slots	25.80	24.89	25.09	25.07	4.26	21.54	20.63	20.83	20.81
	4 Tx Slots	23.80	22.91	23.16	23.12	3.01	20.79	19.90	20.15	20.11
EGPRS (8PSK)	1 Tx Slot	25.50	24.11	24.27	24.41	9.03	16.47	15.08	15.24	15.38
	2 Tx Slots	23.50	22.09	22.15	22.40	6.02	17.48	16.07	16.13	16.38
	3 Tx Slots	21.50	19.97	20.03	20.12	4.26	17.24	15.71	15.77	15.86
	4 Tx Slots	19.50	17.95	17.98	18.02	3.01	16.49	14.94	14.97	15.01

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

1. Standalone: GSM 850 GMSK (GPRS) mode with 2 time slots for Max power, GSM 1900 GMSK (GPRS) mode with 2 time slots for Max power, based on the output power measurements above..

Second – Antenna

GSM 850 (Receiver on)		Burst-Averaged output power(dBm)				Division Factors	Frame-Averaged output power(dBm)			
		Tune-up	Channel/Frenqucy(MHz)				Tune-up	Channel/Frenqucy(MHz)		
		MAX	128 /824.2	190 /836.6	251 /848.8		MAX	128 /824.2	190 /836.6	251 /848.8
GSM	CS	28.30	27.12	27.12	27.10	9.03	19.27	18.09	18.09	18.07
GPRS/ EGPRS (GMSK)	1 Tx Slot	28.30	27.19	27.20	27.11	9.03	19.27	18.16	18.17	18.08
	2 Tx Slots	26.30	25.08	24.98	24.88	6.02	20.28	19.06	18.96	18.86
	3 Tx Slots	24.30	22.69	22.86	22.87	4.26	20.04	18.43	18.60	18.61
	4 Tx Slots	22.30	20.42	20.62	20.59	3.01	19.29	17.41	17.61	17.58
EGPRS (8PSK)	1 Tx Slot	22.00	21.02	21.04	20.92	9.03	12.97	11.99	12.01	11.89
	2 Tx Slots	20.00	19.47	19.22	18.68	6.02	13.98	13.45	13.20	12.66
	3 Tx Slots	18.00	16.28	16.25	16.02	4.26	13.74	12.02	11.99	11.76
	4 Tx Slots	16.00	15.43	15.51	15.45	3.01	12.99	12.42	12.50	12.44
GSM 850 (Receiver off)		Burst-Averaged output power(dBm)				Division Factors	Frame-Averaged output power(dBm)			
		Tune-up	Channel/Frenqucy(MHz)				Tune-up	Channel/Frenqucy(MHz)		
		MAX	128 /824.2	190 /836.6	251 /848.8		MAX	128 /824.2	190 /836.6	251 /848.8
GSM	CS	33.30	32.43	32.09	32.12	9.03	24.27	23.40	23.06	23.09
GPRS/ EGPRS (GMSK)	1 Tx Slot	33.30	32.47	32.11	32.16	9.03	24.27	23.44	23.08	23.13
	2 Tx Slots	31.30	29.79	29.74	29.71	6.02	25.28	23.77	23.72	23.69
	3 Tx Slots	29.30	27.52	27.48	27.47	4.26	25.04	23.26	23.22	23.21
	4 Tx Slots	27.30	25.34	25.29	25.19	3.01	24.29	22.33	22.28	22.18
EGPRS (8PSK)	1 Tx Slot	27.00	26.04	25.96	25.92	9.03	17.97	17.01	16.93	16.89
	2 Tx Slots	25.00	23.57	23.44	23.41	6.02	18.98	17.55	17.42	17.39
	3 Tx Slots	23.00	21.23	21.31	21.14	4.26	18.74	16.97	17.05	16.88
	4 Tx Slots	21.00	19.56	18.81	19.32	3.01	17.99	16.55	15.80	16.31
GSM 1900 (Receiver on)		Burst-Averaged output power(dBm)				Division Factors	Frame-Averaged output power(dBm)			
		Tune-up	Channel/Frenqucy(MHz)				Tune-up	Channel/Frenqucy(MHz)		
		MAX	512 /1850.2	661 /1880	810 /1909.8		MAX	512 /1850.2	661 /1880	810 /1909.8
GSM	CS	27.30	26.52	26.03	25.85	9.03	18.27	17.49	17.00	16.82
GPRS/ EGPRS (GMSK)	1 Tx Slot	27.30	26.55	26.06	25.84	9.03	18.27	17.52	17.03	16.81
	2 Tx Slots	25.30	24.42	23.95	23.74	6.02	19.28	18.40	17.93	17.72
	3 Tx Slots	23.30	22.51	21.91	21.65	4.26	19.04	18.25	17.65	17.39
	4 Tx Slots	21.30	19.98	19.41	19.37	3.01	18.29	16.97	16.40	16.36

EGPRS (8PSK)	1 Tx Slot	23.00	21.72	21.13	21.05	9.03	13.97	12.69	12.10	12.02
	2 Tx Slots	21.00	19.64	18.98	18.87	6.02	14.98	13.62	12.96	12.85
	3 Tx Slots	19.00	17.42	17.01	16.87	4.26	14.74	13.16	12.75	12.61
	4 Tx Slots	17.00	15.41	15.16	15.13	3.01	13.99	12.40	12.15	12.12
GSM 1900 (Receiver off)		Burst-Averaged output power(dBm)				Division Factors	Frame-Averaged output power(dBm)			
		Tune-up	Channel/Frenqucy(MHz)				Tune-up	Channel/Frenqucy(MHz)		
		MAX	512 /1850.2	661 /1880	810 /1909.8		MAX	512 /1850.2	661 /1880	810 /1909.8
GSM	CS	30.80	30.09	29.67	29.63	9.03	21.77	21.06	20.64	20.60
GPRS/ EGPRS (GMSK)	1 Tx Slot	30.80	30.12	29.67	29.61	9.03	21.77	21.09	20.64	20.58
	2 Tx Slots	28.80	27.87	27.54	27.34	6.02	22.78	21.85	21.52	21.32
	3 Tx Slots	26.80	25.85	25.26	25.06	4.26	22.54	21.59	21.00	20.80
	4 Tx Slots	24.80	23.78	23.20	22.98	3.01	21.79	20.77	20.19	19.97
EGPRS (8PSK)	1 Tx Slot	26.50	25.23	24.87	24.48	9.03	17.47	16.20	15.84	15.45
	2 Tx Slots	24.50	23.01	22.50	22.15	6.02	18.48	16.99	16.48	16.13
	3 Tx Slots	22.50	20.87	20.28	20.04	4.26	18.24	16.61	16.02	15.78
	4 Tx Slots	20.50	18.89	18.40	18.27	3.01	17.49	15.88	15.39	15.26

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

1. Standalone: GSM 850 GMSK (GPRS) mode with 2 time slots for Max power, GSM 1900 GMSK (GPRS) mode with 2 time slots for Max power, based on the output power measurements above..

9.2 WCDMA Mode

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

Main- Antenna

WCDMA		Band II(dBm) (Receiver on) (Receiver off+SAR sensor on Level D3) (Receiver off+SAR sensor on Level D7) (sensor off+hotspot off)				Band II(dBm) (Receiver off+SAR sensor on Level D1&D2)				Band II(dBm) (Hotspot on+Receiver off+SAR sensor on Level D3) (Hotspot on+Receiver off+SAR sensor on Level D7) (sensor off+hotspot on)			
		Tx Channel	9262	9400	9538	Tune-up	9262	9400	9538	Tune-up	9262	9400	9538
Frequency(MHz)		1852.4	1880	1907.6	Limit	1852.4	1880	1907.6	Limit	1852.4	1880	1907.6	Limit
RMC	12.2kbps	23.97	24.04	24.01	25.00	23.43	23.58	23.61	25.00	20.63	20.72	20.55	21.50
AMR	12.2kbps	23.91	23.95	23.94	25.00	23.33	23.49	23.48	25.00	20.53	20.63	20.42	21.50
HSDPA	Sub 1	24.39	24.46	24.43	25.00	23.85	24.00	24.03	25.00	20.05	20.14	19.97	21.50
	Sub 2	23.38	23.45	23.42	24.50	22.84	22.99	23.02	24.50	20.04	20.13	19.96	21.00
	Sub 3	22.87	22.94	22.91	24.00	22.33	22.48	22.51	24.00	19.53	19.62	19.45	20.50
	Sub 4	22.86	22.93	22.90	24.00	22.32	22.47	22.50	24.00	19.52	19.61	19.44	20.50
HSUPA	Sub 1	24.35	24.42	24.39	25.00	23.81	23.96	23.99	25.00	20.01	20.10	19.93	21.50
	Sub 2	24.34	24.41	24.38	25.00	23.80	23.95	23.98	25.00	19.70	19.79	19.62	21.50
	Sub 3	23.82	23.90	23.87	25.00	23.28	23.44	23.47	25.00	20.18	20.28	20.11	21.50
	Sub 4	24.31	24.39	24.36	25.00	23.77	23.93	23.96	25.00	19.67	19.77	19.60	21.50
	Sub 5	24.30	24.38	24.35	25.00	23.76	23.92	23.95	25.00	19.96	20.06	19.89	21.50
DC- HSDPA	Sub 1	24.11	24.20	24.15	25.00	23.57	23.74	23.75	25.00	19.77	19.88	19.69	21.50
	Sub 2	24.10	24.19	24.14	24.50	22.56	22.73	22.74	24.50	19.76	19.87	19.68	21.00
	Sub 3	23.68	23.68	23.65	24.00	22.14	22.22	22.25	24.00	19.34	19.36	19.19	20.50
	Sub 4	23.67	23.67	23.64	24.00	22.13	22.21	22.24	24.00	19.33	19.35	19.18	20.50
WCDMA		Band II(dBm) (Hotspot on+Receiver off+SAR sensor on Level D1&D2)				Band II(dBm) (Hotspot on+Receiver on)							
Tx Channel		9262	9400	9538	Tune-up	9262	9400	9538	Tune-up				
Frequency(MHz)		1852.4	1880	1907.6	Limit	1852.4	1880	1907.6	Limit				
RMC	12.2kbps	20.17	20.25	20.19	20.50	20.17	20.24	20.35	22.00				
AMR	12.2kbps	20.07	20.16	20.06	20.50	20.07	20.15	20.22	22.00				
HSDPA	Sub 1	19.59	19.67	19.61	20.50	21.59	21.66	21.77	22.00				
	Sub 2	19.58	19.66	19.60	20.00	19.58	19.65	19.76	21.50				
	Sub 3	19.07	19.15	19.09	19.50	20.07	20.14	20.25	21.00				
	Sub 4	19.06	19.14	19.08	19.50	20.06	20.13	20.24	21.00				

HSUPA	Sub 1	19.55	19.63	19.57	20.50	21.55	21.62	21.73	22.00
	Sub 2	18.54	18.62	18.56	20.50	20.54	20.61	20.72	22.00
	Sub 3	19.02	19.11	19.05	20.50	21.02	21.10	21.21	22.00
	Sub 4	18.51	18.60	18.54	20.50	20.51	20.59	20.70	22.00
	Sub 5	19.50	19.59	19.53	20.50	21.50	21.58	21.69	22.00
DC-HS DPA	Sub 1	19.31	19.41	19.33	20.50	21.31	21.40	21.49	22.00
	Sub 2	19.30	19.40	19.32	20.00	19.80	19.89	19.98	21.50
	Sub 3	18.88	18.89	18.83	19.50	19.88	19.88	19.99	21.00
	Sub 4	18.87	18.88	18.82	19.50	19.87	19.87	19.98	21.00

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

WCDMA		Band IV(dBm) (Receiver on) (Receiver off+SAR sensor on Level D3) (Receiver off+SAR sensor on Level D7) (sensor off+hotspot off)				Band IV(dBm) (Receiver off+SAR sensor on Level D1&D2)			
		1312	1413	1513	Tune-up	1312	1413	1513	Tune-up
Tx Channel		1712.4	1732.6	1752.6	Limit	1712.4	1732.6	1752.6	Limit
Frequency(MHz)		1712.4	1732.6	1752.6	Limit	1712.4	1732.6	1752.6	Limit
RMC	12.2kbps	22.99	22.95	22.87	24.50	22.35	22.57	22.42	23.50
AMR	12.2kbps	22.89	22.86	22.74	24.50	22.25	22.48	22.29	23.50
HSDPA	Sub 1	24.41	24.37	24.33	26.00	23.84	24.06	23.91	25.00
	Sub 2	24.40	24.36	24.28	25.50	23.25	23.47	23.32	24.50
	Sub 3	23.89	23.85	23.77	25.00	22.67	22.89	22.74	24.00
	Sub 4	23.88	23.84	23.76	25.00	22.66	22.88	22.73	24.00
HSUPA	Sub 1	23.37	23.33	23.25	24.50	22.80	23.02	22.87	23.50
	Sub 2	23.36	23.32	23.24	24.50	22.29	22.51	22.36	23.50
	Sub 3	22.84	22.81	22.73	24.50	22.77	21.70	22.85	23.50
	Sub 4	23.33	23.30	23.22	24.50	22.26	22.49	22.34	23.50
	Sub 5	23.32	23.29	23.21	24.50	22.75	22.73	22.83	23.50
DC-HSDPA	Sub 1	25.13	25.11	25.01	26.00	23.84	24.08	23.91	25.00
	Sub 2	24.12	24.10	24.00	25.50	23.33	23.57	23.40	24.50
	Sub 3	23.70	23.59	23.51	25.00	23.06	23.21	23.06	24.00
	Sub 4	23.69	23.58	23.50	25.00	23.05	23.20	23.05	24.00

WCDMA		Band IV(dBm) (Hotspot on+Receiver on) (Hotspot on+Receiver off+SAR sensor on Level D3) (Hotspot on+Receiver off+SAR sensor on Level D7) (sensor off+hotspot on)				Band IV(dBm) (Hotspot on+Receiver off+SAR sensor on Level D1&D2)			
		1312	1413	1513	Tune-up	1312	1413	1513	Tune-up
Tx Channel		1312	1413	1513	Limit	1312	1413	1513	Limit
Frequency(MHz)		1712.4	1732.6	1752.6	Limit	1712.4	1732.6	1752.6	Limit
RMC	12.2kbps	20.44	20.54	20.41	21.50	20.08	20.02	20.03	20.50
AMR	12.2kbps	20.34	20.45	20.28	21.50	19.98	19.93	19.90	20.50
HSDPA	Sub 1	22.86	22.96	22.83	23.00	20.50	20.44	20.45	22.00
	Sub 2	21.35	21.45	21.32	22.50	19.99	19.93	19.94	21.50
	Sub 3	20.34	20.44	20.31	22.00	19.48	19.42	19.43	21.00
	Sub 4	20.33	20.43	20.30	22.00	19.47	19.41	19.42	21.00
HSUPA	Sub 1	20.82	20.92	20.79	21.50	19.96	19.90	19.91	20.50
	Sub 2	19.81	19.91	19.78	21.50	18.95	18.89	18.90	20.50
	Sub 3	20.29	20.40	20.27	21.50	19.43	19.38	19.39	20.50
	Sub 4	19.78	19.89	19.76	21.50	18.92	18.87	18.88	20.50
	Sub 5	20.77	20.88	20.75	21.50	19.91	19.86	19.87	20.50
DC-HSDPA	Sub 1	21.58	21.70	21.55	23.00	20.22	20.18	20.17	22.00
	Sub 2	21.07	21.19	21.04	22.50	19.71	19.67	19.66	21.50
	Sub 3	20.15	20.18	20.05	22.00	19.29	19.16	19.17	21.00
	Sub 4	20.14	20.17	20.04	22.00	19.28	19.15	19.16	21.00

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

WCDMA		Band V(dBm) (Receiver on) (Receiver off+SAR sensor on Level D1&D2) (Receiver off+SAR sensor on Level D3) (Receiver off+SAR sensor on Level D7) (sensor off+hotspot off)				Band V(dBm) (Hotspot on+Receiver on) (Hotspot on+Receiver off+SAR sensor on Level D1&D2) (Hotspot on+Receiver off+SAR sensor on Level D3) (Hotspot on+Receiver off+SAR sensor on Level D7) (sensor off+hotspot on)			
		4132	4183	4233	Tune-up	4132	4183	4233	Tune-up
Tx Channel		4132	4183	4233	Limit	4132	4183	4233	Limit
Frequency(MHz)		826.4	836.6	846.6	Limit	826.4	836.6	846.6	Limit
RMC	12.2kbps	23.88	23.92	23.84	25.00	22.87	22.92	22.87	24.00
AMR	12.2kbps	23.78	23.83	23.71	25.00	22.77	22.83	22.74	24.00
HSDPA	Sub 1	23.30	23.34	23.26	25.00	22.29	22.34	22.29	24.00
	Sub 2	23.29	23.33	23.25	24.50	22.28	22.33	22.28	23.50

	Sub 3	22.78	22.82	22.74	24.00	21.77	21.82	21.77	23.00
	Sub 4	22.77	22.81	22.73	24.00	21.76	21.81	21.76	23.00
HSUPA	Sub 1	23.26	23.30	23.22	25.00	22.25	22.30	22.25	24.00
	Sub 2	23.25	23.29	23.21	25.00	22.24	22.29	22.24	24.00
	Sub 3	23.73	23.78	23.70	25.00	22.72	22.78	22.73	24.00
	Sub 4	23.22	23.27	23.19	25.00	22.21	22.27	22.22	24.00
	Sub 5	23.21	23.26	23.18	25.00	23.20	23.26	23.21	24.00
DC-HSDPA	Sub 1	23.02	23.08	22.98	25.00	22.01	22.08	22.01	24.00
	Sub 2	23.01	23.07	22.97	24.50	22.00	22.07	22.00	23.50
	Sub 3	22.59	22.56	22.48	24.00	21.58	21.56	21.51	23.00
	Sub 4	22.58	22.55	22.47	24.00	21.57	21.55	21.50	23.00

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

Second - Antenna

WCDMA		Band II(dBm) (Receiver on)				Band II(dBm) (Receiver off)			
Tx Channel		9262	9400	9538	Tune-up	9262	9400	9538	Tune-up
Frequency(MHz)		1852.4	1880	1907.6	Limit	1852.4	1880	1907.6	Limit
RMC	12.2kbps	16.38	16.64	16.71	18.00	22.40	22.62	22.76	24.00
AMR	12.2kbps	16.28	16.55	16.58	18.00	22.30	22.53	22.63	24.00
HSDPA	Sub 1	16.30	16.56	16.63	18.00	22.42	22.64	22.78	24.00
	Sub 2	15.79	16.05	16.12	17.50	21.81	22.03	22.17	23.50
	Sub 3	15.28	15.54	15.61	17.00	21.30	21.52	21.66	23.00
	Sub 4	15.27	15.53	15.60	17.00	21.29	21.51	21.65	23.00
HSUPA	Sub 1	16.76	17.02	17.09	18.00	22.38	22.60	22.74	24.00
	Sub 2	16.15	16.41	16.48	18.00	22.27	22.49	22.63	24.00
	Sub 3	16.23	16.50	16.57	18.00	22.45	22.68	22.82	24.00
	Sub 4	16.12	16.39	16.46	18.00	22.24	22.47	22.61	24.00
	Sub 5	16.71	16.98	17.05	18.00	22.33	22.56	22.70	24.00
DC-HSDPA	Sub 1	16.52	16.80	16.85	18.00	22.14	22.38	22.50	24.00
	Sub 2	16.01	16.29	16.34	17.50	21.53	21.77	21.89	23.50
	Sub 3	15.09	15.28	15.35	17.00	21.11	21.26	21.40	23.00
	Sub 4	15.08	15.27	15.34	17.00	21.10	21.25	21.39	23.00

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

WCDMA		Band IV(dBm) (Receiver on)				Band IV(dBm) (Receiver off)			
Tx Channel		1312	1413	1513	Tune-up	1312	1413	1513	Tune-up
Frequency(MHz)		1712.4	1732.6	1752.6	Limit	1712.4	1732.6	1752.6	Limit
RMC	12.2kbps	15.30	15.47	15.26	17.00	22.30	22.40	22.13	24.00
AMR	12.2kbps	15.20	15.38	15.13	17.00	22.20	22.31	22.00	24.00
HSDPA	Sub 1	16.72	16.89	16.68	18.50	23.72	23.82	23.55	25.50
	Sub 2	16.71	16.88	16.67	18.00	23.71	23.81	23.54	25.00
	Sub 3	16.20	16.37	16.16	17.50	23.20	23.30	23.03	24.50
	Sub 4	16.19	16.36	16.15	17.50	23.19	23.29	23.02	24.50
HSUPA	Sub 1	16.68	16.85	16.64	17.00	23.68	23.78	23.51	24.00
	Sub 2	15.67	15.84	15.63	17.00	22.67	22.77	22.50	24.00
	Sub 3	16.15	16.33	16.12	17.00	23.15	23.26	22.99	24.00
	Sub 4	15.64	15.82	15.61	17.00	22.64	22.75	22.48	24.00
	Sub 5	16.63	16.81	16.60	17.00	23.63	23.74	23.47	24.00
DC-HSDPA	Sub 1	16.94	17.13	16.90	18.50	23.74	23.86	23.57	25.50
	Sub 2	16.43	16.62	16.39	18.00	23.43	23.55	23.26	25.00
	Sub 3	16.01	16.11	15.90	17.50	23.01	23.04	22.77	24.50
	Sub 4	16.00	16.10	15.89	17.50	23.00	23.03	22.76	24.50

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

WCDMA		Band V(dBm) (Receiver on)				Band V(dBm) (Receiver off)			
Tx Channel		4132	4183	4233	Tune-up	4132	4183	4233	Tune-up
Frequency(MHz)		826.4	836.6	846.6	Limit	826.4	836.6	846.6	Limit
RMC	12.2kbps	17.52	17.57	17.47	19.00	23.47	23.54	23.51	25.00
AMR	12.2kbps	17.42	17.48	17.34	19.00	23.07	23.15	23.08	25.00
HSDPA	Sub 1	17.94	17.99	17.89	19.00	23.14	23.21	23.18	25.00
	Sub 2	17.93	17.98	17.88	18.50	22.92	22.99	22.96	24.50
	Sub 3	17.42	17.47	17.37	18.00	22.90	22.97	22.94	24.00
	Sub 4	17.41	17.46	17.36	18.00	22.88	22.95	22.92	24.00
HSUPA	Sub 1	17.90	17.95	17.85	19.00	23.86	23.93	23.90	25.00
	Sub 2	17.19	17.24	17.14	19.00	23.14	23.21	23.18	25.00
	Sub 3	17.37	17.43	17.33	19.00	23.31	23.39	23.36	25.00
	Sub 4	17.16	17.22	17.12	19.00	23.09	23.17	23.14	25.00
	Sub 5	17.85	17.91	17.81	19.00	23.77	23.85	23.82	25.00
DC-HSDPA	Sub 1	17.66	17.73	17.61	19.00	23.08	23.17	23.12	25.00
	Sub 2	17.65	17.72	17.60	18.50	22.56	22.65	22.60	24.50
	Sub 3	17.23	17.21	17.11	18.00	22.65	22.65	22.62	24.00

	Sub 4	17.22	17.20	17.10	18.00	22.63	22.63	22.60	24.00
Note: 1.Per KDB 941225 D01, SAR for each exposure is measured using a 12.2 kbps RMC with TPC bits configured to all "1's".									

9.3 LTE Mode

9.3.1 LTE Single Carrier

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

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

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

Main-Antenna

LTE FDD Band 2 (Receiver on) (Receiver off+SAR sensor on Level D3) (Receiver off+SAR sensor on Level D7) (sensor off+hotspot off)				Conducted Power(dBm)			Tune-up Limit
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			
				18607/1850.7	18900/1880	19193/1909.3	
1.4MHz	QPSK	1	0	22.86	23.23	23.18	24.00
		1	2	22.77	22.86	22.67	24.00
		1	5	23.04	22.93	22.95	24.00
		3	0	22.78	22.56	22.63	24.00
		3	2	22.60	22.40	22.52	24.00
		3	3	22.48	22.52	22.49	24.00
		6	0	21.69	21.78	21.83	23.00
	16QAM	1	0	22.18	22.21	22.67	23.00
		1	2	22.19	22.35	22.12	23.00
		1	5	22.20	22.11	22.30	23.00
		3	0	21.79	21.70	21.67	23.00
		3	2	21.73	21.64	21.57	23.00
		3	3	21.02	20.87	21.48	23.00
		6	0	20.89	20.79	20.77	22.00
	64QAM	1	0	21.26	21.10	21.38	22.00
		1	2	21.06	21.09	21.13	22.00
		1	5	21.35	21.18	21.26	22.00
		3	0	21.23	21.22	21.09	22.00
		3	2	21.08	21.36	21.14	22.00
		3	3	20.98	21.05	20.86	22.00

Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				18615/1851.5	18900/1880	19185/1908.5	
				6	0	20.12	
3MHz	QPSK	1	0	22.88	23.27	23.21	24.00
		1	7	22.77	22.88	22.71	24.00
		1	14	23.07	22.98	22.99	24.00
		8	0	21.79	22.10	21.94	23.00
		8	4	21.68	21.87	21.85	23.00
		8	7	21.86	21.81	21.97	23.00
		15	0	21.71	21.82	21.86	23.00
	16QAM	1	0	22.21	22.23	22.70	23.00
		1	7	22.22	22.37	22.16	23.00
		1	14	22.22	22.15	22.33	23.00
		8	0	21.84	21.74	21.70	22.00
		8	4	21.78	21.71	21.63	22.00
		8	7	21.06	20.93	21.55	22.00
		15	0	20.92	20.83	20.80	22.00
	64QAM	1	0	21.29	21.12	21.41	22.00
		1	7	21.09	21.11	21.17	22.00
		1	14	21.37	21.22	21.29	22.00
		8	0	20.03	20.11	20.06	21.00
		8	4	19.96	20.00	20.04	21.00
		8	7	19.75	19.72	19.62	21.00
		15	0	19.91	19.99	20.02	21.00
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				18625/1852.5	18900/1880	19175/1907.5	
				6	0	20.12	
5MHz	QPSK	1	0	22.85	23.25	23.17	24.00
		1	13	22.75	22.84	22.68	24.00
		1	24	23.04	22.93	22.95	24.00
		12	0	21.76	22.05	21.90	23.00
		12	6	21.66	21.83	21.80	23.00
		12	13	21.84	21.79	21.93	23.00
		25	0	21.69	21.81	21.84	23.00
	16QAM	1	0	22.18	22.19	22.67	23.00
		1	13	22.19	22.35	22.13	23.00
		1	24	22.19	22.13	22.29	23.00
		12	0	21.82	21.70	21.67	22.00
		12	6	21.75	21.66	21.59	22.00
		12	13	21.03	20.88	21.51	22.00
		25	0	20.90	20.79	20.75	22.00
	64QAM	1	0	21.26	21.08	21.38	22.00
		1	13	21.06	21.09	21.14	22.00
		1	24	21.34	21.20	21.25	22.00

Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit	
				18650/1855	18900/1880	19150/1905		
		12	0	20.01	20.07	20.03	21.00	
		12	6	19.93	19.95	20.00	21.00	
		12	13	19.72	19.67	19.58	21.00	
		25	0	19.89	19.95	19.97	21.00	
10MHz	QPSK	1	0	22.86	23.24	23.19	24.00	
		1	25	22.76	22.88	22.70	24.00	
		1	49	23.05	22.95	22.97	24.00	
		25	0	21.77	22.09	21.92	23.00	
		25	13	21.68	21.86	21.83	23.00	
		25	25	21.84	21.79	21.97	23.00	
		50	0	21.69	21.82	21.85	23.00	
	16QAM	1	0	22.17	22.17	22.67	23.00	
		1	25	22.21	22.38	22.11	23.00	
		1	49	22.20	22.11	22.31	23.00	
		25	0	21.80	21.74	21.68	22.00	
		25	13	21.74	21.65	21.60	22.00	
		25	25	21.05	20.92	21.50	22.00	
		50	0	20.89	20.81	20.75	22.00	
	64QAM	1	0	21.26	21.07	21.39	22.00	
		1	25	21.08	21.11	21.14	22.00	
		1	49	21.34	21.17	21.26	22.00	
		25	0	20.03	20.11	20.02	21.00	
		25	13	19.91	19.96	19.99	21.00	
		25	25	19.73	19.68	19.61	21.00	
		50	0	19.91	19.98	19.98	21.00	
	Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
					18675/1857.5	18900/1880	19125/1902.5	
	15MHz	QPSK	1	0	22.86	23.22	23.18	24.00
			1	38	22.76	22.88	22.69	24.00
			1	74	23.03	22.92	22.94	24.00
			36	0	21.77	22.06	21.91	23.00
			36	18	21.66	21.83	21.80	23.00
36			39	21.83	21.80	21.94	23.00	
75			0	21.72	21.79	21.83	23.00	
16QAM		1	0	22.15	22.20	22.67	23.00	
		1	38	22.20	22.36	22.14	23.00	
		1	74	22.19	22.11	22.29	23.00	
		36	0	21.82	21.73	21.68	22.00	
		36	18	21.74	21.65	21.58	22.00	
		36	39	21.04	20.89	21.52	22.00	
		75	0	20.90	20.79	20.75	22.00	

Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				18700/1860	18900/1880	19100/1900	
	64QAM	1	0	21.23	21.09	21.38	22.00
		1	38	21.07	21.10	21.15	22.00
		1	74	21.34	21.18	21.25	22.00
		36	0	20.01	20.10	20.04	21.00
		36	18	19.92	19.94	19.99	21.00
		36	39	19.73	19.68	19.59	21.00
		75	0	19.89	19.95	19.97	21.00
20MHz	QPSK	1	0	22.83	23.18	23.15	24.00
		1	50	22.75	22.84	22.67	24.00
		1	99	23.01	22.91	22.91	24.00
		50	0	21.74	22.01	21.87	23.00
		50	25	21.64	21.79	21.77	23.00
		50	50	21.80	21.75	21.90	23.00
		100	0	21.69	21.74	21.79	23.00
	16QAM	1	0	22.13	22.16	22.62	23.00
		1	50	22.16	22.34	22.10	23.00
		1	99	22.17	22.08	22.27	23.00
		50	0	21.79	21.69	21.65	22.00
		50	25	21.71	21.63	21.55	22.00
		50	50	21.01	20.84	21.48	22.00
		100	0	20.88	20.75	20.72	22.00
	64QAM	1	0	21.21	21.05	21.33	22.00
		1	50	21.03	21.08	21.11	22.00
		1	99	21.32	21.15	21.23	22.00
		50	0	19.98	20.06	20.01	21.00
		50	25	19.89	19.92	19.96	21.00
		50	50	19.70	19.63	19.55	21.00
		100	0	19.87	19.91	19.94	21.00

LTE FDD Band 2 (Hotspot on+Receiver on) (Hotspot on+Receiver off+SAR sensor on Level D3) (Hotspot on+Receiver off+SAR sensor on Level D7) (sensor off+hotspot on)				Conducted Power(dBm)			Tune-up Limit
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			
				18607/1850.7	18900/1880	19193/1909.3	
1.4MHz	QPSK	1	0	20.65	20.68	20.58	21.50
		1	2	20.45	20.58	20.40	21.50
		1	5	20.47	20.53	20.53	21.50
		3	0	20.59	20.46	20.55	21.50
		3	2	20.54	20.50	20.45	21.50

		3	3	20.32	20.61	20.44	21.50
		6	0	20.47	20.60	20.48	21.50
	16QAM	1	0	21.00	21.13	20.44	21.50
		1	2	21.03	20.85	21.00	21.50
		1	5	20.89	20.84	20.31	21.50
		3	0	20.45	20.36	20.46	21.50
		3	2	20.39	20.38	20.40	21.50
		3	3	20.33	20.41	20.36	21.50
		6	0	20.53	20.46	20.40	21.50
	64QAM	1	0	20.68	20.61	20.60	21.50
		1	2	20.63	20.32	20.44	21.50
		1	5	20.51	20.45	20.39	21.50
		3	0	20.12	20.11	20.05	21.50
		3	2	20.17	20.23	20.12	21.50
3		3	20.05	20.12	19.96	21.50	
6		0	19.88	19.96	20.06	21.50	
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				18615/1851.5	18900/1880	19185/1908.5	
3MHz	QPSK	1	0	20.67	20.72	20.61	21.50
		1	7	20.45	20.60	20.44	21.50
		1	14	20.50	20.58	20.57	21.50
		8	0	20.63	20.53	20.62	21.50
		8	4	20.57	20.58	20.51	21.50
		8	7	20.36	20.66	20.48	21.50
		15	0	20.49	20.64	20.51	21.50
	16QAM	1	0	21.03	21.15	20.47	21.50
		1	7	21.06	20.87	21.04	21.50
		1	14	20.91	20.88	20.34	21.50
		8	0	20.50	20.40	20.49	21.50
		8	4	20.44	20.45	20.46	21.50
		8	7	20.37	20.47	20.43	21.50
		15	0	20.56	20.50	20.43	21.50
	64QAM	1	0	20.71	20.63	20.63	21.50
		1	7	20.66	20.34	20.48	21.50
		1	14	20.53	20.49	20.42	21.50
		8	0	20.17	20.15	20.08	21.50
		8	4	20.22	20.30	20.18	21.50
		8	7	20.09	20.18	20.03	21.50
		15	0	19.90	20.02	20.11	21.50
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				18625/1852.5	18900/1880	19175/1907.5	
5MHz	QPSK	1	0	20.64	20.70	20.57	21.50
		1	13	20.43	20.56	20.41	21.50

		1	24	20.47	20.53	20.53	21.50	
		12	0	20.60	20.48	20.58	21.50	
		12	6	20.55	20.54	20.46	21.50	
		12	13	20.34	20.64	20.44	21.50	
		25	0	20.47	20.63	20.49	21.50	
	16QAM	1	0	21.00	21.11	20.44	21.50	
		1	13	21.03	20.85	21.01	21.50	
		1	24	20.88	20.86	20.30	21.50	
		12	0	20.48	20.36	20.46	21.50	
		12	6	20.41	20.40	20.42	21.50	
		12	13	20.34	20.42	20.39	21.50	
		25	0	20.54	20.46	20.38	21.50	
	64QAM	1	0	20.68	20.59	20.60	21.50	
		1	13	20.63	20.32	20.45	21.50	
		1	24	20.50	20.47	20.38	21.50	
		12	0	20.15	20.11	20.05	21.50	
		12	6	20.19	20.25	20.14	21.50	
		12	13	20.06	20.13	19.99	21.50	
		25	0	19.88	19.98	20.06	21.50	
	Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
					18650/1855	18900/1880	19150/1905	
10MHz	QPSK	1	0	20.05	20.36	20.14	21.50	
		1	25	20.30	20.38	20.29	21.50	
		1	49	20.23	20.27	20.22	21.50	
		25	0	20.11	20.10	20.12	21.50	
		25	13	20.15	20.22	20.18	21.50	
		25	25	20.07	20.17	20.30	21.50	
		50	0	20.10	20.16	20.13	21.50	
	16QAM	1	0	20.42	20.73	20.45	21.50	
		1	25	20.51	20.68	20.57	21.50	
		1	49	20.62	20.65	20.53	21.50	
		25	0	20.13	20.19	20.21	21.50	
		25	13	20.23	20.16	20.08	21.50	
		25	25	20.05	20.08	20.16	21.50	
		50	0	20.15	20.07	20.11	21.50	
	64QAM	1	0	20.12	20.03	20.10	21.50	
		1	25	20.00	20.05	20.16	21.50	
		1	49	20.18	20.01	20.20	21.50	
		25	0	19.98	20.03	20.13	21.50	
		25	13	20.02	20.06	20.11	21.50	
		25	25	20.07	20.10	20.21	21.50	
		50	0	20.15	20.16	20.19	21.50	

Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				18675/1857.5	18900/1880	19125/1902.5	
15MHz	QPSK	1	0	20.65	20.67	20.58	21.50
		1	38	20.44	20.60	20.42	21.50
		1	74	20.46	20.52	20.52	21.50
		36	0	20.61	20.49	20.59	21.50
		36	18	20.55	20.54	20.46	21.50
		36	39	20.33	20.65	20.45	21.50
		75	0	20.50	20.61	20.48	21.50
	16QAM	1	0	20.97	21.12	20.44	21.50
		1	38	21.04	20.86	21.02	21.50
		1	74	20.88	20.84	20.30	21.50
		36	0	20.48	20.39	20.47	21.50
		36	18	20.40	20.39	20.41	21.50
		36	39	20.35	20.43	20.40	21.50
		75	0	20.54	20.46	20.38	21.50
	64QAM	1	0	20.65	20.60	20.60	21.50
		1	38	20.64	20.33	20.46	21.50
		1	74	20.50	20.45	20.38	21.50
		36	0	20.15	20.14	20.06	21.50
		36	18	20.18	20.24	20.13	21.50
		36	39	20.07	20.14	20.00	21.50
		75	0	19.88	19.98	20.06	21.50
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				18700/1860	18900/1880	19100/1900	
20MHz	QPSK	1	0	20.62	20.63	20.55	21.50
		1	50	20.43	20.56	20.40	21.50
		1	99	20.44	20.51	20.49	21.50
		50	0	20.58	20.44	20.55	21.50
		50	25	20.53	20.50	20.43	21.50
		50	50	20.30	20.60	20.41	21.50
		100	0	20.47	20.56	20.44	21.50
	16QAM	1	0	20.95	21.08	20.39	21.50
		1	50	21.00	20.84	20.98	21.50
		1	99	20.86	20.81	20.28	21.50
		50	0	20.45	20.35	20.44	21.50
		50	25	20.37	20.37	20.38	21.50
		50	50	20.32	20.38	20.36	21.50
		100	0	20.52	20.42	20.35	21.50
	64QAM	1	0	20.63	20.56	20.55	21.50
		1	50	20.60	20.31	20.42	21.50
		1	99	20.48	20.42	20.36	21.50
		50	0	20.12	20.10	20.03	21.50

		50	25	20.15	20.22	20.10	21.50
		50	50	20.04	20.09	19.96	21.50
		100	0	19.86	19.94	20.03	21.50

LTE FDD Band 2 (Receiver off+SAR sensor on Level D1&D2)				Conducted Power(dBm)			Tune-up Limit	
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)				
				18607/1850.7	18900/1880	19193/1909.3		
1.4MHz	QPSK	1	0	23.00	22.98	22.89	23.50	
		1	2	22.89	22.97	22.79	23.50	
		1	5	22.93	22.86	22.75	23.50	
		3	0	21.94	22.04	21.89	23.50	
		3	2	21.81	21.84	21.82	23.50	
		3	3	21.85	21.75	21.85	23.50	
	16QAM	6	0	21.94	21.84	21.81	23.00	
		1	0	22.25	22.00	21.98	23.00	
		1	2	22.16	21.98	21.96	23.00	
		1	5	22.12	22.07	22.05	23.00	
		3	0	21.11	21.09	21.19	23.00	
		3	2	21.60	21.78	21.68	23.00	
	64QAM	3	3	21.84	21.83	21.81	23.00	
		6	0	20.87	20.87	20.80	22.00	
		1	0	21.73	21.28	21.97	22.00	
		1	2	21.61	21.53	21.90	22.00	
		1	5	21.70	21.81	21.79	22.00	
		3	0	20.93	20.79	20.85	22.00	
	3MHz	QPSK	3	2	20.78	20.84	20.74	22.00
			3	3	20.93	20.72	20.77	22.00
			6	0	20.76	20.84	20.69	21.00
1			0	23.02	23.02	22.92	23.50	
1			7	22.89	22.99	22.83	23.50	
1			14	22.96	22.91	22.79	23.50	
16QAM		8	0	21.98	22.11	21.96	23.00	
		8	4	21.84	21.92	21.88	23.00	
		8	7	21.89	21.80	21.89	23.00	
		15	0	21.96	21.88	21.84	23.00	
		1	0	22.28	22.02	22.01	23.00	
		1	7	22.19	22.00	22.00	23.00	
		1	14	22.14	22.11	22.08	23.00	
		8	0	20.95	20.78	20.91	22.00	
		8	4	20.75	20.95	20.84	22.00	
		8	4	20.75	20.95	20.84	22.00	

		8	7	20.98	20.99	20.98	22.00
		15	0	20.90	20.91	20.83	22.00
	64QAM	1	0	21.76	21.30	22.00	22.00
		1	7	21.64	21.55	21.94	22.00
		1	14	21.72	21.85	21.82	22.00
		8	0	20.98	20.83	20.88	21.00
		8	4	20.83	20.91	20.80	21.00
		8	7	20.97	20.78	20.84	21.00
		15	0	20.78	20.90	20.74	21.00
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				18625/1852.5	18900/1880	19175/1907.5	
5MHz	QPSK	1	0	22.99	23.00	22.88	23.50
		1	13	22.87	22.95	22.80	23.50
		1	24	22.93	22.86	22.75	23.50
		12	0	21.95	22.06	21.92	23.00
		12	6	21.82	21.88	21.83	23.00
		12	13	21.87	21.78	21.85	23.00
		25	0	21.94	21.87	21.82	23.00
	16QAM	1	0	22.25	21.98	21.98	23.00
		1	13	22.16	21.98	21.97	23.00
		1	24	22.11	22.09	22.04	23.00
		12	0	20.93	20.74	20.88	22.00
		12	6	20.72	20.90	20.80	22.00
		12	13	20.95	20.94	20.94	22.00
		25	0	20.88	20.87	20.78	22.00
	64QAM	1	0	21.73	21.26	21.97	22.00
		1	13	21.61	21.53	21.91	22.00
		1	24	21.69	21.83	21.78	22.00
		12	0	20.96	20.79	20.85	21.00
		12	6	20.80	20.86	20.76	21.00
		12	13	20.86	20.73	20.80	21.00
		25	0	20.76	20.86	20.69	21.00
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				18650/1855	18900/1880	19150/1905	
10MHz	QPSK	1	0	23.00	22.99	22.90	23.50
		1	25	22.88	22.99	22.82	23.50
		1	49	22.94	22.88	22.77	23.50
		25	0	21.96	22.10	21.94	23.00
		25	13	21.84	21.91	21.86	23.00
		25	25	21.87	21.78	21.89	23.00
		50	0	21.94	21.88	21.83	23.00
	16QAM	1	0	22.24	21.96	21.98	23.00
		1	25	22.18	22.01	21.95	23.00

		1	49	22.12	22.07	22.06	23.00
		25	0	20.91	20.78	20.89	22.00
		25	13	20.71	20.89	20.81	22.00
		25	25	20.97	20.98	20.93	22.00
		50	0	20.87	20.89	20.78	22.00
	64QAM	1	0	21.73	21.25	21.98	22.00
		1	25	21.63	21.55	21.91	22.00
		1	49	21.69	21.80	21.79	22.00
		25	0	20.98	20.83	20.84	21.00
		25	13	20.78	20.87	20.75	21.00
		25	25	20.88	20.74	20.83	21.00
		50	0	20.78	20.89	20.70	21.00
		Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)	
				18675/1857.5	18900/1880	19125/1902.5	
15MHz	QPSK	1	0	23.00	22.97	22.89	23.50
		1	38	22.88	22.99	22.81	23.50
		1	74	22.92	22.85	22.74	23.50
		36	0	21.96	22.07	21.93	23.00
		36	18	21.82	21.88	21.83	23.00
		36	39	21.86	21.79	21.86	23.00
		75	0	21.97	21.85	21.81	23.00
	16QAM	1	0	22.22	21.99	21.98	23.00
		1	38	22.17	21.99	21.98	23.00
		1	74	22.11	22.07	22.04	23.00
		36	0	20.93	20.77	20.89	22.00
		36	18	20.71	20.89	20.79	22.00
		36	39	20.96	20.95	20.95	22.00
		75	0	20.88	20.87	20.78	22.00
	64QAM	1	0	21.70	21.27	21.97	22.00
		1	38	21.62	21.54	21.92	22.00
		1	74	21.69	21.81	21.78	22.00
		36	0	20.91	20.82	20.86	21.00
		36	18	20.79	20.85	20.75	21.00
		36	39	20.95	20.74	20.81	21.00
		75	0	20.76	20.86	20.69	21.00
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				18700/1860	18900/1880	19100/1900	
20MHz	QPSK	1	0	22.97	22.93	22.86	23.50
		1	50	22.87	22.95	22.79	23.50
		1	99	22.90	22.84	22.71	23.50
		50	0	21.93	22.02	21.89	23.00
		50	25	21.80	21.84	21.80	23.00
		50	50	21.83	21.74	21.82	23.00

	16QAM	100	0	21.94	21.80	21.77	23.00
		1	0	22.20	21.95	21.93	23.00
		1	50	22.13	21.97	21.94	23.00
		1	99	22.09	22.04	22.02	23.00
		50	0	20.90	20.73	20.86	22.00
		50	25	20.68	20.87	20.76	22.00
		50	50	20.93	20.90	20.91	22.00
		100	0	20.86	20.83	20.75	22.00
	64QAM	1	0	21.68	21.23	21.92	22.00
		1	50	21.58	21.52	21.88	22.00
		1	99	21.67	21.78	21.76	22.00
		50	0	20.93	20.78	20.83	21.00
		50	25	20.76	20.83	20.72	21.00
		50	50	20.92	20.69	20.77	21.00
		100	0	20.74	20.82	20.66	21.00

LTE FDD Band 2 (Hotspot on+Receiver off+SAR sensor on Level D1&D2)				Conducted Power(dBm)			Tune-up Limit
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			
				18607/1850.7	18900/1880	19193/1909.3	
1.4MHz	QPSK	1	0	20.34	20.38	20.31	21.00
		1	2	20.20	20.21	20.21	21.00
		1	5	20.29	20.23	20.17	21.00
		3	0	20.28	20.27	20.29	21.00
		3	2	20.19	20.11	20.14	21.00
		3	3	20.15	20.11	20.16	21.00
		6	0	20.20	20.21	20.19	21.00
	16QAM	1	0	20.70	20.67	20.58	21.00
		1	2	20.43	20.61	20.67	21.00
		1	5	20.47	20.61	20.57	21.00
		3	0	20.19	20.16	20.16	21.00
		3	2	20.15	20.11	20.03	21.00
		3	3	20.03	20.04	20.02	21.00
		6	0	20.02	20.08	20.08	21.00
	64QAM	1	0	20.50	20.17	20.46	21.00
		1	2	20.39	20.14	20.25	21.00
		1	5	20.43	20.26	20.24	21.00
		3	0	20.03	20.19	20.07	21.00
		3	2	20.01	20.03	20.02	21.00
		3	3	20.09	20.07	20.04	21.00
		6	0	20.14	20.16	20.06	21.00

Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				18615/1851.5	18900/1880	19185/1908.5	
3MHz	QPSK	1	0	20.36	20.42	20.34	21.00
		1	7	20.20	20.23	20.25	21.00
		1	14	20.32	20.28	20.21	21.00
		8	0	20.32	20.34	20.36	21.00
		8	4	20.22	20.19	20.20	21.00
		8	7	20.19	20.16	20.20	21.00
		15	0	20.22	20.25	20.22	21.00
	16QAM	1	0	20.73	20.69	20.61	21.00
		1	7	20.46	20.63	20.71	21.00
		1	14	20.49	20.65	20.60	21.00
		8	0	20.24	20.20	20.19	21.00
		8	4	20.20	20.18	20.09	21.00
		8	7	20.07	20.10	20.09	21.00
		15	0	20.05	20.12	20.11	21.00
	64QAM	1	0	20.53	20.19	20.49	21.00
		1	7	20.42	20.16	20.29	21.00
		1	14	20.45	20.30	20.27	21.00
		8	0	20.08	20.23	20.10	21.00
		8	4	20.06	20.10	20.08	21.00
		8	7	20.13	20.13	20.11	21.00
		15	0	20.16	20.22	20.11	21.00
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
5MHz	QPSK	1	0	20.33	20.40	20.30	21.00
		1	13	20.18	20.19	20.22	21.00
		1	24	20.29	20.23	20.17	21.00
		12	0	20.29	20.29	20.32	21.00
		12	6	20.20	20.15	20.15	21.00
		12	13	20.17	20.14	20.16	21.00
		25	0	20.20	20.24	20.20	21.00
	16QAM	1	0	20.70	20.65	20.58	21.00
		1	13	20.43	20.61	20.68	21.00
		1	24	20.46	20.63	20.56	21.00
		12	0	20.22	20.16	20.16	21.00
		12	6	20.17	20.13	20.05	21.00
		12	13	20.04	20.05	20.05	21.00
		25	0	20.03	20.08	20.06	21.00
	64QAM	1	0	20.50	20.15	20.46	21.00
		1	13	20.39	20.14	20.26	21.00
		1	24	20.42	20.28	20.23	21.00
		12	0	20.06	20.19	20.07	21.00

Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				18650/1855	18900/1880	19150/1905	
10MHz	QPSK	12	6	20.03	20.05	20.04	21.00
		12	13	20.10	20.08	20.07	21.00
		25	0	20.14	20.18	20.06	21.00
		1	0	20.34	20.39	20.32	21.00
		1	25	20.19	20.23	20.24	21.00
		1	49	20.30	20.25	20.19	21.00
		25	0	20.30	20.33	20.34	21.00
	16QAM	25	13	20.22	20.18	20.18	21.00
		25	25	20.17	20.14	20.20	21.00
		50	0	20.20	20.25	20.21	21.00
		1	0	20.69	20.63	20.58	21.00
		1	25	20.45	20.64	20.66	21.00
		1	49	20.47	20.61	20.58	21.00
		25	0	20.20	20.20	20.17	21.00
	64QAM	25	13	20.16	20.12	20.06	21.00
		25	25	20.06	20.09	20.04	21.00
		50	0	20.02	20.10	20.06	21.00
		1	0	20.50	20.14	20.47	21.00
		1	25	20.41	20.16	20.26	21.00
		1	49	20.42	20.25	20.24	21.00
		25	0	20.08	20.23	20.06	21.00
15MHz	QPSK	25	13	20.01	20.06	20.03	21.00
		25	25	20.11	20.09	20.10	21.00
		50	0	20.16	20.21	20.07	21.00
		1	0	20.34	20.37	20.31	21.00
		1	38	20.19	20.23	20.23	21.00
		1	74	20.28	20.22	20.16	21.00
		36	0	20.30	20.30	20.33	21.00
	16QAM	36	18	20.20	20.15	20.15	21.00
		36	39	20.16	20.15	20.17	21.00
		75	0	20.23	20.22	20.19	21.00
		1	0	20.67	20.66	20.58	21.00
		1	38	20.44	20.62	20.69	21.00
		1	74	20.46	20.61	20.56	21.00
		36	0	20.22	20.19	20.17	21.00
64QAM	36	18	20.16	20.12	20.04	21.00	
	36	39	20.05	20.06	20.06	21.00	
		75	0	20.03	20.08	20.06	21.00
		1	0	20.47	20.16	20.46	21.00

Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				18700/1860	18900/1880	19100/1900	
20MHz	QPSK	1	38	20.40	20.15	20.27	21.00
		1	74	20.42	20.26	20.23	21.00
		36	0	20.06	20.22	20.08	21.00
		36	18	20.02	20.04	20.03	21.00
		36	39	20.11	20.09	20.08	21.00
		75	0	20.14	20.18	20.06	21.00
	16QAM	1	0	20.31	20.33	20.28	21.00
		1	50	20.18	20.19	20.21	21.00
		1	99	20.26	20.21	20.13	21.00
		50	0	20.27	20.29	20.25	21.00
		50	25	20.18	20.11	20.12	21.00
		50	50	20.13	20.10	20.13	21.00
	64QAM	100	0	20.20	20.17	20.15	21.00
		1	0	20.65	20.62	20.53	21.00
		1	50	20.40	20.60	20.65	21.00
		1	99	20.44	20.58	20.54	21.00
		50	0	20.19	20.15	20.14	21.00
		50	25	20.13	20.10	20.01	21.00
	64QAM	50	50	20.02	20.01	20.02	21.00
		100	0	20.01	20.04	20.03	21.00
		1	0	20.45	20.12	20.41	21.00
1		50	20.36	20.13	20.23	21.00	
1		99	20.40	20.23	20.21	21.00	
50		0	20.03	20.18	20.05	21.00	
64QAM	50	25	19.99	20.02	20.00	21.00	
	50	50	20.08	20.04	20.04	21.00	
	100	0	20.12	20.14	20.03	21.00	

LTE FDD Band 4 (Receiver on) (Receiver off+SAR sensor on Level D3) (Receiver off+SAR sensor on Level D7) (sensor off+hotspot off)				Conducted Power(dBm)			Tune-up Limit
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			
				19957/1710.7	20175/1732.5	20393/1754.3	
1.4MHz	QPSK	1	0	22.66	22.55	22.54	23.50
		1	2	22.44	22.29	22.35	23.50
		1	5	22.39	22.21	22.29	23.50
		3	0	21.72	21.83	21.32	22.50
		3	2	21.64	21.23	21.18	22.50
		3	3	21.37	21.21	21.28	22.50

	16QAM	6	0	21.21	21.23	21.23	22.50
		1	0	22.09	22.07	22.04	22.50
		1	2	21.60	21.70	21.63	22.50
		1	5	21.67	21.63	21.84	22.50
		3	0	20.30	20.36	20.27	21.50
		3	2	20.24	20.13	20.16	21.50
		3	3	20.84	20.19	20.30	21.50
		6	0	20.22	20.16	20.24	21.50
	64QAM	1	0	20.20	20.36	20.27	21.50
		1	2	20.28	20.18	20.18	21.50
		1	5	20.33	20.35	20.44	21.50
		3	0	20.28	20.22	20.18	20.50
		3	2	20.22	20.27	20.32	20.50
		3	3	20.31	20.25	20.19	20.50
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				19965/1711.5	20175/1732.5	20385/1753.5	
3MHz	QPSK	1	0	22.68	22.59	22.57	23.50
		1	7	22.44	22.31	22.39	23.50
		1	14	22.42	22.26	22.33	23.50
		8	0	21.76	21.90	21.39	22.50
		8	4	21.67	21.31	21.24	22.50
		8	7	21.41	21.26	21.32	22.50
		15	0	21.23	21.27	21.26	22.50
	16QAM	1	0	22.12	22.09	22.07	22.50
		1	7	21.63	21.72	21.67	22.50
		1	14	21.69	21.67	21.87	22.50
		8	0	20.35	20.40	20.30	21.50
		8	4	20.29	20.20	20.22	21.50
		8	7	20.88	20.25	20.37	21.50
		15	0	20.25	20.20	20.27	21.50
	64QAM	1	0	20.23	20.38	20.30	21.50
		1	7	20.31	20.20	20.22	21.50
		1	14	20.35	20.39	20.47	21.50
		8	0	20.33	20.26	20.21	20.50
		8	4	20.27	20.34	20.38	20.50
		8	7	20.35	20.31	20.26	20.50
		15	0	20.35	20.41	20.47	20.50
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				19975/1712.5	20175/1732.5	20375/1752.5	
5MHz	QPSK	1	0	22.65	22.57	22.53	23.50
		1	13	22.42	22.27	22.36	23.50
		1	24	22.39	22.21	22.29	23.50

		12	0	21.73	21.85	21.35	22.50
		12	6	21.65	21.27	21.19	22.50
		12	13	21.39	21.24	21.28	22.50
		25	0	21.21	21.26	21.24	22.50
	16QAM	1	0	22.09	22.05	22.04	22.50
		1	13	21.60	21.70	21.64	22.50
		1	24	21.66	21.65	21.83	22.50
		12	0	20.33	20.36	20.27	21.50
		12	6	20.26	20.15	20.18	21.50
		12	13	20.85	20.20	20.33	21.50
		25	0	20.23	20.16	20.22	21.50
	64QAM	1	0	20.20	20.34	20.27	21.50
		1	13	20.28	20.18	20.19	21.50
		1	24	20.32	20.37	20.43	21.50
		12	0	20.31	20.22	20.18	20.50
		12	6	20.24	20.29	20.34	20.50
		12	13	20.32	20.26	20.22	20.50
		25	0	20.33	20.37	20.42	20.50
	Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)		
20000/1715					20175/1732.5	20350/1750	
10MHz	QPSK	1	0	22.66	22.56	22.55	23.50
		1	25	22.43	22.31	22.38	23.50
		1	49	22.40	22.23	22.31	23.50
		25	0	21.74	21.89	21.37	22.50
		25	13	21.67	21.30	21.22	22.50
		25	25	21.39	21.24	21.32	22.50
		50	0	21.21	21.27	21.25	22.50
	16QAM	1	0	22.08	22.03	22.04	22.50
		1	25	21.62	21.73	21.62	22.50
		1	49	21.67	21.63	21.85	22.50
		25	0	20.31	20.40	20.28	21.50
		25	13	20.25	20.14	20.19	21.50
		25	25	20.87	20.24	20.32	21.50
		50	0	20.22	20.18	20.22	21.50
	64QAM	1	0	20.20	20.33	20.28	21.50
		1	25	20.30	20.20	20.19	21.50
		1	49	20.32	20.34	20.44	21.50
		25	0	20.33	20.26	20.17	20.50
		25	13	20.22	20.30	20.33	20.50
		25	25	20.33	20.27	20.25	20.50
		50	0	20.35	20.40	20.43	20.50

Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				20025/1717.5	20175/1732.5	20325/1747.5	
15MHz	QPSK	1	0	22.66	22.54	22.54	23.50
		1	38	22.43	22.31	22.37	23.50
		1	74	22.38	22.20	22.28	23.50
		36	0	21.74	21.86	21.36	22.50
		36	18	21.65	21.27	21.19	22.50
		36	39	21.38	21.25	21.29	22.50
		75	0	21.24	21.24	21.23	22.50
	16QAM	1	0	22.06	22.06	22.04	22.50
		1	38	21.61	21.71	21.65	22.50
		1	74	21.66	21.63	21.83	22.50
		36	0	20.33	20.39	20.28	21.50
		36	18	20.25	20.14	20.17	21.50
		36	39	20.86	20.21	20.34	21.50
		75	0	20.23	20.16	20.22	21.50
	64QAM	1	0	20.17	20.35	20.27	21.50
		1	38	20.29	20.19	20.20	21.50
		1	74	20.32	20.35	20.43	21.50
		36	0	20.31	20.25	20.19	20.50
		36	18	20.23	20.28	20.33	20.50
		36	39	20.33	20.27	20.23	20.50
		75	0	20.33	20.37	20.42	20.50
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				20050/1720	20175/1732.5	20300/1745	
20MHz	QPSK	1	0	22.63	22.50	22.51	23.50
		1	50	22.42	22.27	22.35	23.50
		1	99	22.36	22.19	22.25	23.50
		50	0	21.71	21.81	21.32	22.50
		50	25	21.63	21.23	21.16	22.50
		50	50	21.35	21.20	21.25	22.50
		100	0	21.21	21.19	21.19	22.50
	16QAM	1	0	22.04	22.02	21.99	22.50
		1	50	21.57	21.69	21.61	22.50
		1	99	21.64	21.60	21.81	22.50
		50	0	20.30	20.35	20.25	21.50
		50	25	20.22	20.12	20.14	21.50
		50	50	20.83	20.16	20.30	21.50
		100	0	20.21	20.12	20.19	21.50
	64QAM	1	0	20.15	20.31	20.22	21.50
		1	50	20.25	20.17	20.16	21.50
		1	99	20.30	20.32	20.41	21.50
		50	0	20.28	20.21	20.16	20.50

		50	25	20.20	20.26	20.30	20.50
		50	50	20.30	20.22	20.19	20.50
		100	0	20.31	20.33	20.39	20.50

LTE FDD Band 4 (Hotspot on+Receiver on) (Hotspot on+Receiver off+SAR sensor on Level D3) (Hotspot on+Receiver off+SAR sensor on Level D7) (sensor off+hotspot on)				Conducted Power(dBm)			Tune-up Limit
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			
				19957/1710.7	20175/1732.5	20393/1754.3	
1.4MHz	QPSK	1	0	19.93	20.05	19.98	21.00
		1	2	19.79	19.86	19.87	21.00
		1	5	19.88	19.68	19.83	21.00
		3	0	20.69	20.92	20.83	21.00
		3	2	20.60	20.87	20.69	21.00
		3	3	20.76	20.67	20.73	21.00
		6	0	19.86	19.88	19.92	21.00
	16QAM	1	0	20.11	20.17	20.29	21.00
		1	2	20.09	20.13	20.13	21.00
		1	5	20.13	20.06	19.99	21.00
		3	0	20.68	20.63	20.77	21.00
		3	2	20.53	20.55	20.71	21.00
		3	3	20.64	20.62	20.63	21.00
		6	0	19.52	19.77	19.83	21.00
	64QAM	1	0	20.18	19.86	19.91	21.00
		1	2	19.88	19.85	19.70	21.00
		1	5	20.04	19.98	19.86	21.00
		3	0	20.58	20.80	20.77	21.00
		3	2	20.52	20.62	20.64	21.00
		3	3	20.81	20.60	20.66	21.00
		6	0	19.78	19.73	19.81	20.50
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				19965/1711.5	20175/1732.5	20385/1753.5	
3MHz	QPSK	1	0	19.95	20.09	20.01	21.00
		1	7	19.77	19.89	19.91	21.00
		1	14	19.91	19.73	19.87	21.00
		8	0	19.79	20.04	19.96	21.00
		8	4	19.72	19.97	19.81	21.00
		8	7	19.86	19.78	19.83	21.00
		15	0	19.86	19.92	19.95	21.00
	16QAM	1	0	20.14	20.19	20.32	21.00
		1	7	20.12	20.13	20.17	21.00

		1	14	20.15	20.10	20.02	21.00
		8	0	19.79	19.76	19.89	21.00
		8	4	19.64	19.68	19.83	21.00
		8	7	19.74	19.74	19.76	21.00
		15	0	19.55	19.81	19.86	21.00
	64QAM	1	0	20.21	19.88	19.94	21.00
		1	7	19.91	19.85	19.72	21.00
		1	14	20.06	19.97	19.89	21.00
		8	0	19.69	19.93	19.89	20.50
		8	4	19.63	19.75	19.76	20.50
		8	7	19.91	19.72	19.79	20.50
		15	0	19.81	19.77	19.84	20.50
		Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)	
19975/1712.5	20175/1732.5					20375/1752.5	
5MHz	QPSK	1	0	19.93	20.04	19.98	21.00
		1	13	19.76	19.89	19.89	21.00
		1	24	19.87	19.67	19.82	21.00
		12	0	19.77	20.00	19.93	21.00
		12	6	19.70	19.93	19.76	21.00
		12	13	19.83	19.77	19.80	21.00
		25	0	19.88	19.89	19.92	21.00
	16QAM	1	0	20.08	20.16	20.29	21.00
		1	13	20.10	20.12	20.15	21.00
		1	24	20.12	20.06	19.98	21.00
		12	0	19.77	19.75	19.87	21.00
		12	6	19.60	19.62	19.78	21.00
		12	13	19.72	19.70	19.73	21.00
		25	0	19.53	19.77	19.81	21.00
	64QAM	1	0	20.15	19.85	19.91	21.00
		1	13	19.89	19.84	19.70	21.00
		1	24	20.07	19.96	19.89	21.00
		12	0	19.69	19.96	19.91	20.50
		12	6	19.60	19.71	19.74	20.50
		12	13	19.89	19.68	19.76	20.50
		25	0	19.79	19.73	19.79	20.50
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				20000/1715	20175/1732.5	20350/1750	
10MHz	QPSK	1	0	19.92	20.07	19.97	21.00
		1	25	19.75	19.85	19.88	21.00
		1	49	19.88	19.68	19.83	21.00
		25	0	19.76	19.99	19.92	21.00
		25	13	19.70	19.93	19.76	21.00
		25	25	19.84	19.76	19.79	21.00

	16QAM	50	0	19.86	19.91	19.93	21.00
		1	0	20.11	20.15	20.29	21.00
		1	25	20.09	20.11	20.14	21.00
		1	49	20.12	20.08	19.98	21.00
		25	0	19.77	19.72	19.86	21.00
		25	13	19.61	19.63	19.79	21.00
		25	25	19.71	19.69	19.72	21.00
		50	0	19.53	19.77	19.81	21.00
	64QAM	1	0	20.18	19.88	19.91	21.00
		1	25	19.88	19.87	19.69	21.00
		1	49	20.07	19.95	19.85	21.00
		25	0	19.67	19.89	19.90	20.50
		25	13	19.60	19.70	19.72	20.50
		25	25	19.88	19.67	19.75	20.50
50		0	19.79	19.73	19.79	20.50	
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				20025/1717.5	20175/1732.5	20325/1747.5	
15MHz	QPSK	1	0	19.94	20.08	20.00	21.00
		1	38	19.78	19.90	19.92	21.00
		1	74	19.90	19.72	19.86	21.00
		36	0	19.79	20.04	19.96	21.00
		36	18	19.73	19.98	19.80	21.00
		36	39	19.86	19.80	19.84	21.00
		75	0	19.90	19.93	19.97	21.00
	16QAM	1	0	20.13	20.18	20.31	21.00
		1	38	20.12	20.15	20.17	21.00
		1	74	20.15	20.10	20.01	21.00
		36	0	19.80	19.77	19.90	21.00
		36	18	19.63	19.67	19.82	21.00
		36	39	19.74	19.74	19.76	21.00
		75	0	19.56	19.82	19.85	21.00
	64QAM	1	0	20.20	19.87	19.93	21.00
		1	38	19.91	19.87	19.72	21.00
		1	74	20.06	19.97	19.88	21.00
		36	0	19.70	19.94	19.90	20.50
		36	18	19.62	19.74	19.75	20.50
		36	39	19.91	19.72	19.79	20.50
		75	0	19.82	19.78	19.83	20.50
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				20050/1720	20175/1732.5	20300/1745	
20MHz	QPSK	1	0	19.90	20.00	19.95	21.00
		1	50	19.75	19.85	19.87	21.00
		1	99	19.85	19.66	19.79	21.00

		50	0	19.74	19.95	19.89	21.00
		50	25	19.68	19.89	19.73	21.00
		50	50	19.80	19.72	19.76	21.00
		100	0	19.85	19.84	19.88	21.00
	16QAM	1	0	20.07	20.12	20.24	21.00
		1	50	20.06	20.10	20.11	21.00
		1	99	20.10	20.03	19.96	21.00
		50	0	19.74	19.71	19.84	21.00
		50	25	19.57	19.60	19.75	21.00
		50	50	19.69	19.65	19.69	21.00
		100	0	19.51	19.73	19.78	21.00
	64QAM	1	0	20.13	19.81	19.86	21.00
		1	50	19.85	19.82	19.66	21.00
		1	99	20.01	19.90	19.83	21.00
		50	0	19.64	19.88	19.84	20.50
		50	25	19.56	19.67	19.68	20.50
		50	50	19.86	19.63	19.72	20.50
		100	0	19.77	19.69	19.76	20.50

LTE FDD Band 4 (Receiver off+SAR sensor on Level D1&D2)				Conducted Power(dBm)			Tune-up Limit
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			
				19957/1710.7	20175/1732.5	20393/1754.3	
1.4MHz	QPSK	1	0	22.28	22.37	21.89	22.50
		1	2	22.34	22.31	22.13	22.50
		1	5	22.41	22.45	22.22	22.50
		3	0	21.12	21.42	21.07	22.50
		3	2	21.26	21.25	21.12	22.50
		3	3	21.33	21.32	21.29	22.50
		6	0	21.20	21.24	21.31	22.50
	16QAM	1	0	21.62	21.61	21.63	22.50
		1	2	21.52	21.27	21.34	22.50
		1	5	21.64	21.48	21.42	22.50
		3	0	20.66	20.87	20.76	22.50
		3	2	20.73	20.76	20.71	22.50
		3	3	20.79	20.64	20.63	22.50
		6	0	20.11	20.25	20.11	21.50
	64QAM	1	0	20.28	20.25	20.23	21.50
		1	2	20.14	20.10	20.12	21.50
		1	5	20.19	20.27	20.28	21.50
		3	0	19.22	19.16	19.13	21.50
		3	2	19.28	19.26	19.18	21.50
		3	3	19.32	19.33	19.28	21.50

Bandwidth	Modulation	6	0	19.21	19.24	19.30	20.50
		RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				19965/1711.5	20175/1732.5	20385/1753.5	
3MHz	QPSK	1	0	22.30	22.41	21.92	22.50
		1	7	22.34	22.33	22.17	22.50
		1	14	22.44	22.50	22.26	22.50
		8	0	21.16	21.49	21.14	22.50
		8	4	21.29	21.33	21.18	22.50
		8	7	21.37	21.37	21.33	22.50
		15	0	21.22	21.28	21.34	22.50
	16QAM	1	0	21.65	21.63	21.66	22.50
		1	7	21.55	21.29	21.38	22.50
		1	14	21.66	21.52	21.45	22.50
		8	0	20.21	20.41	20.29	21.50
		8	4	20.28	20.33	20.27	21.50
		8	7	20.33	20.20	20.20	21.50
		15	0	20.14	20.29	20.14	21.50
	64QAM	1	0	20.31	20.27	20.26	21.50
		1	7	20.17	20.12	20.16	21.50
		1	14	20.21	20.31	20.31	21.50
		8	0	19.27	19.20	19.16	20.50
		8	4	19.33	19.33	19.24	20.50
		8	7	19.36	19.39	19.35	20.50
		15	0	19.23	19.30	19.35	20.50
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				19975/1712.5	20175/1732.5	20375/1752.5	
		5MHz	QPSK	1	0	22.27	22.39
1	13			22.32	22.29	22.14	22.50
1	24			22.41	22.45	22.22	22.50
12	0			21.13	21.44	21.10	22.50
12	6			21.27	21.29	21.13	22.50
12	13			21.35	21.35	21.29	22.50
25	0			21.20	21.27	21.32	22.50
16QAM	1		0	21.62	21.59	21.63	22.50
	1		13	21.52	21.27	21.35	22.50
	1		24	21.63	21.50	21.41	22.50
	12		0	20.19	20.37	20.26	21.50
	12		6	20.25	20.28	20.23	21.50
	12		13	20.30	20.15	20.16	21.50
	25		0	20.12	20.25	20.09	21.50
64QAM	1		0	20.28	20.23	20.23	21.50
	1		13	20.14	20.10	20.13	21.50
	1		24	20.18	20.29	20.27	21.50

Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit	
				20000/1715	20175/1732.5	20350/1750		
		12	0	19.25	19.16	19.13	20.50	
		12	6	19.30	19.28	19.20	20.50	
		12	13	19.33	19.34	19.31	20.50	
		25	0	19.21	19.26	19.30	20.50	
10MHz	QPSK	1	0	22.28	22.38	21.90	22.50	
		1	25	22.33	22.33	22.16	22.50	
		1	49	22.42	22.47	22.24	22.50	
		25	0	21.14	21.48	21.12	22.50	
		25	13	21.29	21.32	21.16	22.50	
		25	25	21.35	21.35	21.33	22.50	
		50	0	21.20	21.28	21.33	22.50	
	16QAM	1	0	21.61	21.57	21.63	22.50	
		1	25	21.54	21.30	21.33	22.50	
		1	49	21.64	21.48	21.43	22.50	
		25	0	20.17	20.41	20.27	21.50	
		25	13	20.24	20.27	20.24	21.50	
		25	25	20.32	20.19	20.15	21.50	
		50	0	20.11	20.27	20.09	21.50	
	64QAM	1	0	20.28	20.22	20.24	21.50	
		1	25	20.16	20.12	20.13	21.50	
		1	49	20.18	20.26	20.28	21.50	
		25	0	19.27	19.20	19.12	20.50	
		25	13	19.28	19.29	19.19	20.50	
		25	25	19.34	19.35	19.34	20.50	
		50	0	19.23	19.29	19.31	20.50	
	Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
					20025/1717.5	20175/1732.5	20325/1747.5	
	15MHz	QPSK	1	0	22.28	22.36	21.89	22.50
			1	38	22.33	22.33	22.15	22.50
			1	74	22.40	22.44	22.21	22.50
			36	0	21.14	21.45	21.11	22.50
			36	18	21.27	21.29	21.13	22.50
36			39	21.34	21.36	21.30	22.50	
75			0	21.23	21.25	21.31	22.50	
16QAM		1	0	21.59	21.60	21.63	22.50	
		1	38	21.53	21.28	21.36	22.50	
		1	74	21.63	21.48	21.41	22.50	
		36	0	20.19	20.40	20.27	21.50	
		36	18	20.24	20.27	20.22	21.50	
		36	39	20.31	20.16	20.17	21.50	
		75	0	20.12	20.25	20.09	21.50	

Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				20050/1720	20175/1732.5	20300/1745	
	64QAM	1	0	20.25	20.24	20.23	21.50
		1	38	20.15	20.11	20.14	21.50
		1	74	20.18	20.27	20.27	21.50
		36	0	19.25	19.19	19.14	20.50
		36	18	19.29	19.27	19.19	20.50
		36	39	19.34	19.35	19.32	20.50
		75	0	19.21	19.26	19.30	20.50
20MHz	QPSK	1	0	22.25	22.32	21.86	22.50
		1	50	22.32	22.29	22.13	22.50
		1	99	22.38	22.43	22.18	22.50
		50	0	21.11	21.40	21.07	22.50
		50	25	21.25	21.25	21.10	22.50
		50	50	21.31	21.31	21.26	22.50
		100	0	21.20	21.20	21.27	22.50
	16QAM	1	0	21.57	21.56	21.58	22.50
		1	50	21.49	21.26	21.32	22.50
		1	99	21.61	21.45	21.39	22.50
		50	0	20.16	20.36	20.24	21.50
		50	25	20.21	20.25	20.19	21.50
		50	50	20.28	20.11	20.13	21.50
		100	0	20.10	20.21	20.06	21.50
	64QAM	1	0	20.23	20.20	20.18	21.50
		1	50	20.11	20.09	20.10	21.50
		1	99	20.16	20.24	20.25	21.50
		50	0	19.22	19.15	19.11	20.50
		50	25	19.26	19.25	19.16	20.50
		50	50	19.31	19.30	19.28	20.50
		100	0	19.19	19.22	19.27	20.50

LTE FDD Band 4 (Hotspot on+Receiver off+SAR sensor on Level D1&D2)				Conducted Power(dBm)			Tune-up Limit
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			
				19957/1710.7	20175/1732.5	20393/1754.3	
1.4MHz	QPSK	1	0	19.46	19.62	19.54	20.00
		1	2	19.48	19.44	19.44	20.00
		1	5	19.55	19.51	19.50	20.00
		3	0	19.55	19.56	19.48	20.00
		3	2	19.52	19.56	19.54	20.00
		3	3	19.57	19.48	19.44	20.00
		6	0	19.54	19.55	19.43	20.00
	16QAM	1	0	19.53	19.78	19.71	20.00

		1	2	19.74	19.66	19.54	20.00
		1	5	19.82	19.61	19.58	20.00
		3	0	19.32	19.47	19.45	20.00
		3	2	19.37	19.45	19.42	20.00
		3	3	19.42	19.40	19.33	20.00
		6	0	19.35	19.43	19.34	20.00
	64QAM	1	0	19.47	19.45	19.50	20.00
		1	2	19.44	19.40	19.39	20.00
		1	5	19.39	19.38	19.45	20.00
		3	0	19.43	19.38	19.40	20.00
		3	2	19.51	19.52	19.50	20.00
		3	3	19.26	19.22	19.34	20.00
		6	0	19.36	19.44	19.42	20.00
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				19965/1711.5	20175/1732.5	20385/1753.5	
3MHz	QPSK	1	0	19.48	19.66	19.57	20.00
		1	7	19.48	19.46	19.48	20.00
		1	14	19.58	19.56	19.54	20.00
		8	0	19.59	19.63	19.55	20.00
		8	4	19.55	19.64	19.60	20.00
		8	7	19.61	19.53	19.48	20.00
		15	0	19.56	19.59	19.46	20.00
	16QAM	1	0	19.56	19.80	19.74	20.00
		1	7	19.77	19.68	19.58	20.00
		1	14	19.84	19.65	19.61	20.00
		8	0	19.37	19.51	19.48	20.00
		8	4	19.42	19.52	19.48	20.00
		8	7	19.46	19.46	19.40	20.00
		15	0	19.38	19.47	19.37	20.00
	64QAM	1	0	19.50	19.47	19.53	20.00
		1	7	19.47	19.42	19.43	20.00
		1	14	19.41	19.42	19.48	20.00
		8	0	19.48	19.42	19.43	20.00
		8	4	19.56	19.59	19.56	20.00
		8	7	19.30	19.28	19.41	20.00
		15	0	19.38	19.50	19.47	20.00
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				19975/1712.5	20175/1732.5	20375/1752.5	
5MHz	QPSK	1	0	19.45	19.64	19.53	20.00
		1	13	19.46	19.42	19.45	20.00
		1	24	19.55	19.51	19.50	20.00
		12	0	19.56	19.58	19.51	20.00
		12	6	19.53	19.60	19.55	20.00

Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit		
				20000/1715	20175/1732.5	20350/1750			
	16QAM	12	13	19.59	19.51	19.44	20.00		
		25	0	19.54	19.58	19.44	20.00		
		1	0	19.53	19.76	19.71	20.00		
		1	13	19.74	19.66	19.55	20.00		
		1	24	19.81	19.63	19.57	20.00		
		12	0	19.35	19.47	19.45	20.00		
		12	6	19.39	19.47	19.44	20.00		
		12	13	19.43	19.41	19.36	20.00		
		25	0	19.36	19.43	19.32	20.00		
	64QAM	1	0	19.47	19.43	19.50	20.00		
		1	13	19.44	19.40	19.40	20.00		
		1	24	19.38	19.40	19.44	20.00		
		12	0	19.46	19.38	19.40	20.00		
		12	6	19.53	19.54	19.52	20.00		
		12	13	19.27	19.23	19.37	20.00		
		25	0	19.36	19.46	19.42	20.00		
		10MHz	QPSK	1	0	19.46	19.63	19.55	20.00
				1	25	19.47	19.46	19.47	20.00
1	49			19.56	19.53	19.52	20.00		
25	0			19.57	19.62	19.53	20.00		
25	13			19.55	19.63	19.58	20.00		
25	25			19.59	19.51	19.48	20.00		
50	0			19.54	19.59	19.45	20.00		
16QAM	1		0	19.52	19.74	19.71	20.00		
	1		25	19.76	19.69	19.53	20.00		
	1		49	19.82	19.61	19.59	20.00		
	25		0	19.33	19.51	19.46	20.00		
	25		13	19.38	19.46	19.45	20.00		
	25		25	19.45	19.45	19.35	20.00		
	50		0	19.35	19.45	19.32	20.00		
64QAM	1		0	19.47	19.42	19.51	20.00		
	1		25	19.46	19.42	19.40	20.00		
	1		49	19.38	19.37	19.45	20.00		
	25		0	19.48	19.42	19.39	20.00		
	25	13	19.51	19.55	19.51	20.00			
	25	25	19.28	19.24	19.40	20.00			
	50	0	19.38	19.49	19.43	20.00			
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit		
				20025/1717.5	20175/1732.5	20325/1747.5			
15MHz	QPSK	1	0	19.46	19.61	19.54	20.00		
		1	38	19.47	19.46	19.46	20.00		

Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit	
				20050/1720	20175/1732.5	20300/1745		
20MHz	16QAM	1	74	19.54	19.50	19.49	20.00	
		36	0	19.57	19.59	19.52	20.00	
		36	18	19.53	19.60	19.55	20.00	
		36	39	19.58	19.52	19.45	20.00	
		75	0	19.57	19.56	19.43	20.00	
		1	0	19.50	19.77	19.71	20.00	
		1	38	19.75	19.67	19.56	20.00	
		1	74	19.81	19.61	19.57	20.00	
		36	0	19.35	19.50	19.46	20.00	
		36	18	19.38	19.46	19.43	20.00	
		36	39	19.44	19.42	19.37	20.00	
		75	0	19.36	19.43	19.32	20.00	
		64QAM	1	0	19.44	19.44	19.50	20.00
			1	38	19.45	19.41	19.41	20.00
	1		74	19.38	19.38	19.44	20.00	
	36		0	19.46	19.41	19.41	20.00	
	36		18	19.52	19.53	19.51	20.00	
	36		39	19.28	19.24	19.38	20.00	
	75		0	19.36	19.46	19.42	20.00	
	20MHz	QPSK	1	0	19.43	19.57	19.51	20.00
			1	50	19.46	19.42	19.44	20.00
			1	99	19.52	19.49	19.46	20.00
			50	0	19.54	19.54	19.48	20.00
			50	25	19.51	19.56	19.52	20.00
			50	50	19.55	19.47	19.41	20.00
			100	0	19.54	19.51	19.39	20.00
		16QAM	1	0	19.48	19.73	19.66	20.00
			1	50	19.71	19.65	19.52	20.00
1			99	19.79	19.58	19.55	20.00	
50			0	19.32	19.46	19.43	20.00	
50			25	19.35	19.44	19.40	20.00	
50			50	19.41	19.37	19.33	20.00	
100			0	19.34	19.39	19.29	20.00	
64QAM		1	0	19.42	19.40	19.45	20.00	
		1	50	19.41	19.39	19.37	20.00	
		1	99	19.36	19.35	19.42	20.00	
		50	0	19.43	19.37	19.38	20.00	
		50	25	19.49	19.51	19.48	20.00	
		50	50	19.25	19.19	19.34	20.00	
		100	0	19.34	19.42	19.39	20.00	

LTE FDD Band 5 (Receiver on) (Receiver off+SAR sensor on Level D1&D2) (Receiver off+SAR sensor on Level D3) (Receiver off+SAR sensor on Level D7) (sensor off+hotspot off)				Conducted Power(dBm)			Tune-up Limit
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			
				20407/824.7	20525/836.5	20643/848.3	
1.4MHz	QPSK	1	0	24.14	24.12	23.97	25.00
		1	2	24.02	24.19	24.01	25.00
		1	5	23.98	23.93	24.03	25.00
		3	0	22.96	22.94	22.98	24.00
		3	2	22.92	22.87	22.88	24.00
		3	3	22.87	22.97	22.86	24.00
		6	0	23.06	22.93	23.11	24.00
	16QAM	1	0	23.54	23.23	23.37	24.00
		1	2	23.41	23.38	23.15	24.00
		1	5	23.33	23.16	23.32	24.00
		3	0	22.06	21.97	21.98	23.00
		3	2	22.04	21.86	21.90	23.00
		3	3	22.04	21.89	21.80	23.00
		6	0	21.86	21.87	22.04	23.00
	64QAM	1	0	22.03	21.92	21.91	23.00
		1	2	21.91	21.97	21.95	23.00
		1	5	22.05	22.09	22.06	23.00
		3	0	21.56	21.43	21.42	22.00
		3	2	21.35	21.49	21.54	22.00
		3	3	21.53	21.47	21.30	22.00
		6	0	21.10	21.16	21.15	22.00
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				20415/825.5	20525/836.5	20635/847.5	
3MHz	QPSK	1	0	24.16	24.04	24.02	25.00
		1	7	24.02	24.21	24.05	25.00
		1	14	24.03	23.98	24.07	25.00
		8	0	23.00	23.01	23.05	24.00
		8	4	22.95	22.95	22.94	24.00
		8	7	22.91	23.02	22.90	24.00
		15	0	23.08	22.97	23.14	24.00
	16QAM	1	0	23.57	23.25	23.40	24.00
		1	7	23.44	23.40	23.19	24.00
		1	14	23.35	23.20	23.35	24.00
		8	0	22.11	22.04	22.01	23.00
		8	4	22.09	21.93	21.96	23.00

Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit	
				20425/826.5	20525/836.5	20625/846.5		
	64QAM	8	7	22.08	21.95	21.87	23.00	
		15	0	21.89	21.91	22.07	23.00	
		1	0	22.06	21.94	22.03	23.00	
		1	7	21.94	21.99	21.99	23.00	
		1	14	22.07	22.13	22.09	23.00	
		8	0	21.61	21.47	21.45	22.00	
		8	4	21.40	21.56	21.60	22.00	
		8	7	21.57	21.53	21.37	22.00	
		15	0	21.12	21.22	21.20	22.00	
5MHz	QPSK	1	0	24.13	24.02	23.96	25.00	
		1	13	24.05	24.17	24.02	25.00	
		1	24	24.02	23.93	24.03	25.00	
		12	0	22.97	22.96	23.01	24.00	
		12	6	22.93	22.91	22.89	24.00	
		12	13	22.89	23.01	22.86	24.00	
		25	0	23.06	22.96	23.12	24.00	
	16QAM	1	0	23.54	23.21	23.37	24.00	
		1	13	23.41	23.38	23.16	24.00	
		1	24	23.32	23.18	23.31	24.00	
		12	0	22.09	21.92	21.98	23.00	
		12	6	22.06	21.88	21.92	23.00	
		12	13	22.05	21.90	21.83	23.00	
		25	0	21.87	21.87	22.02	23.00	
	64QAM	1	0	22.03	21.90	21.94	23.00	
		1	13	21.91	21.97	21.96	23.00	
		1	24	22.04	22.11	22.05	23.00	
		12	0	21.59	21.43	21.42	22.00	
		12	6	21.37	21.51	21.56	22.00	
		12	13	21.54	21.48	21.33	22.00	
		25	0	21.10	21.18	21.15	22.00	
	Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
					20450/829	20525/836.5	20600/844	
	10MHz	QPSK	1	0	24.11	23.95	23.94	25.00
1			25	24.00	24.17	24.01	25.00	
1			49	23.97	23.91	23.99	25.00	
25			0	22.95	22.92	22.98	24.00	
25			13	22.91	22.87	22.86	24.00	
25			25	22.85	22.96	22.83	24.00	
50			0	23.06	22.89	23.07	24.00	
16QAM		1	0	23.49	23.18	23.32	24.00	
		1	25	23.38	23.37	23.13	24.00	

		1	49	23.30	23.13	23.29	24.00
		25	0	22.06	21.99	21.96	23.00
		25	13	22.02	21.85	21.88	23.00
		25	25	22.03	21.86	21.80	23.00
		50	0	21.85	21.83	21.99	23.00
	64QAM	1	0	21.98	21.87	21.95	23.00
		1	25	21.88	21.96	21.93	23.00
		1	49	22.02	22.06	22.03	23.00
		25	0	21.56	21.42	21.40	22.00
		25	13	21.33	21.48	21.52	22.00
		25	25	21.52	21.44	21.30	22.00
		50	0	21.08	21.14	21.12	22.00

LTE FDD Band 5 (Hotspot on+Receiver on) (Hotspot on+Receiver off+SAR sensor on Level D1&D2) (Hotspot on+Receiver off+SAR sensor on Level D3) (Hotspot on+Receiver off+SAR sensor on Level D7) (sensor off+hotspot on)				Conducted Power(dBm)			Tune-up Limit
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			
				20407/824.7	20525/836.5	20643/848.3	
1.4MHz	QPSK	1	0	22.49	22.77	22.74	24.00
		1	2	22.62	22.57	22.52	24.00
		1	5	22.45	22.50	22.49	24.00
		3	0	22.65	22.60	22.63	24.00
		3	2	22.56	22.51	22.62	24.00
		3	3	22.56	22.54	22.38	24.00
		6	0	22.63	22.68	22.70	24.00
	16QAM	1	0	22.74	22.83	22.79	24.00
		1	2	22.68	22.75	22.70	24.00
		1	5	22.60	22.69	22.67	24.00
		3	0	21.55	21.57	21.52	24.00
		3	2	21.54	21.45	21.58	24.00
		3	3	21.40	21.63	21.43	24.00
		6	0	21.55	21.62	21.54	23.00
	64QAM	1	0	22.50	22.80	22.55	23.00
		1	2	22.50	22.39	22.54	23.00
		1	5	22.55	22.42	22.46	23.00
		3	0	21.52	21.40	21.50	23.00
		3	2	21.55	21.46	21.56	23.00
		3	3	21.55	21.40	21.41	23.00
		6	0	21.47	21.44	21.48	22.00

Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				20415/825.5	20525/836.5	20635/847.5	
3MHz	QPSK	1	0	22.51	22.81	22.77	24.00
		1	7	22.65	22.62	22.56	24.00
		1	14	22.48	22.55	22.53	24.00
		8	0	22.73	22.70	22.74	24.00
		8	4	22.66	22.59	22.72	24.00
		8	7	22.64	22.63	22.46	24.00
		15	0	22.66	22.72	22.73	24.00
	16QAM	1	0	22.77	22.85	22.82	24.00
		1	7	22.71	22.80	22.74	24.00
		1	14	22.62	22.73	22.70	24.00
		8	0	21.64	21.68	21.62	23.00
		8	4	21.63	21.56	21.68	23.00
		8	7	21.48	21.73	21.54	23.00
		15	0	21.58	21.66	21.57	23.00
	64QAM	1	0	22.53	22.82	22.58	23.00
		1	7	22.53	22.44	22.58	23.00
		1	14	22.57	22.46	22.49	23.00
		8	0	21.61	21.51	21.60	22.00
		8	4	21.64	21.57	21.66	22.00
		8	7	21.63	21.50	21.52	22.00
		15	0	21.50	21.48	21.51	22.00
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
5MHz	QPSK	1	0	22.48	22.79	22.73	24.00
		1	13	22.63	22.58	22.53	24.00
		1	24	22.45	22.50	22.49	24.00
		12	0	22.70	22.65	22.70	24.00
		12	6	22.64	22.55	22.67	24.00
		12	13	22.62	22.61	22.42	24.00
		25	0	22.64	22.71	22.71	24.00
	16QAM	1	0	22.74	22.81	22.79	24.00
		1	13	22.68	22.78	22.71	24.00
		1	24	22.59	22.71	22.66	24.00
		12	0	21.62	21.64	21.59	23.00
		12	6	21.60	21.51	21.64	23.00
		12	13	21.45	21.68	21.50	23.00
		25	0	21.56	21.62	21.52	23.00
	64QAM	1	0	22.50	22.78	22.55	23.00
		1	13	22.50	22.42	22.55	23.00
		1	24	22.54	22.44	22.45	23.00
		12	0	21.59	21.47	21.57	22.00

Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				20450/829	20525/836.5	20600/844	
10MHz	QPSK	12	6	21.61	21.52	21.62	22.00
		12	13	21.60	21.45	21.48	22.00
		25	0	21.48	21.44	21.46	22.00
		1	0	22.46	22.72	22.71	24.00
		1	25	22.63	22.58	22.52	24.00
		1	49	22.42	22.48	22.45	24.00
		25	0	22.68	22.61	22.67	24.00
	25	13	22.62	22.51	22.64	24.00	
	25	25	22.58	22.57	22.39	24.00	
	50	0	22.67	22.64	22.66	24.00	
	16QAM	1	0	22.69	22.78	22.74	24.00
		1	25	22.65	22.77	22.68	24.00
		1	49	22.57	22.66	22.64	24.00
		25	0	21.59	21.63	21.57	23.00
		25	13	21.56	21.48	21.60	23.00
		25	25	21.43	21.64	21.47	23.00
		50	0	21.54	21.58	21.49	23.00
	64QAM	1	0	22.45	22.75	22.50	23.00
		1	25	22.47	22.41	22.52	23.00
		1	49	22.52	22.39	22.43	23.00
		25	0	21.56	21.46	21.55	22.00
		25	13	21.57	21.49	21.58	22.00
		25	25	21.58	21.41	21.45	22.00
		50	0	21.46	21.40	21.43	22.00

LTE FDD Band 7 (Receiver on) (Receiver off+SAR sensor on Level D7) (sensor off+hotspot off)				Conducted Power(dBm)			Tune-up Limit
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			
				20775/2502.5	21100/2535	21425/2567.5	
5MHz	QPSK	1	0	22.96	23.20	23.27	24.00
		1	13	23.01	23.12	23.18	24.00
		1	24	23.21	23.28	23.29	24.00
		12	0	21.90	22.17	22.24	23.00
		12	6	22.00	22.14	22.11	23.00
		12	13	22.14	22.31	22.20	23.00
		25	0	21.99	22.20	22.25	23.00
	16QAM	1	0	22.43	22.48	22.62	23.00
		1	13	22.45	22.47	22.56	23.00
		1	24	22.41	22.58	22.47	23.00

		12	0	20.90	21.13	21.07	22.00
		12	6	20.88	20.99	21.04	22.00
		12	13	21.07	21.23	21.06	22.00
		25	0	21.00	21.16	21.05	22.00
	64QAM	1	0	21.08	21.22	21.15	22.00
		1	13	21.09	21.17	21.14	22.00
		1	24	21.10	21.10	21.03	22.00
		12	0	20.02	20.04	20.03	21.00
		12	6	19.91	19.83	20.02	21.00
		12	13	19.91	19.94	19.95	21.00
25	0	19.97	20.06	20.14	21.00		
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				20800/2505	21100/2535	21400/2565	
10MHz	QPSK	1	0	22.97	23.19	23.29	24.00
		1	25	23.02	23.16	23.20	24.00
		1	49	23.22	23.30	23.31	24.00
		25	0	21.91	22.21	22.26	23.00
		25	13	22.02	22.17	22.14	23.00
		25	25	22.14	22.31	22.24	23.00
		50	0	21.99	22.21	22.26	23.00
	16QAM	1	0	22.42	22.46	22.62	23.00
		1	25	22.47	22.50	22.54	23.00
		1	49	22.42	22.56	22.49	23.00
		25	0	20.88	21.17	21.08	22.00
		25	13	20.87	20.98	21.05	22.00
		25	25	21.09	21.27	21.05	22.00
		50	0	20.99	21.18	21.05	22.00
	64QAM	1	0	21.08	21.21	21.16	22.00
		1	25	21.11	21.19	21.14	22.00
		1	49	21.10	21.07	21.04	22.00
		25	0	20.04	20.08	20.02	21.00
		25	13	19.89	19.84	20.01	21.00
		25	25	19.92	19.95	19.98	21.00
		50	0	19.99	20.09	20.15	21.00
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				20825/2507.5	21100/2535	21375/2562.5	
15MHz	QPSK	1	0	22.97	23.17	23.28	24.00
		1	38	23.02	23.16	23.19	24.00
		1	74	23.20	23.27	23.28	24.00
		36	0	21.91	22.18	22.25	23.00
		36	18	22.00	22.14	22.11	23.00
		36	39	22.13	22.32	22.21	23.00
		75	0	22.02	22.18	22.24	23.00

	16QAM	1	0	22.40	22.49	22.62	23.00
		1	38	22.46	22.48	22.57	23.00
		1	74	22.41	22.56	22.47	23.00
		36	0	20.90	21.16	21.08	22.00
		36	18	20.87	20.98	21.03	22.00
		36	39	21.08	21.24	21.07	22.00
		75	0	21.00	21.16	21.05	22.00
	64QAM	1	0	21.05	21.23	21.15	22.00
		1	38	21.10	21.18	21.15	22.00
		1	74	21.10	21.08	21.03	22.00
		36	0	20.02	20.07	20.04	21.00
		36	18	19.90	19.82	20.01	21.00
		36	39	19.92	19.95	19.96	21.00
		75	0	19.97	20.06	20.14	21.00
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				20850/2510	21100/2535	21350/2560	
20MHz	QPSK	1	0	22.94	23.13	23.25	24.00
		1	50	23.01	23.12	23.17	24.00
		1	99	23.18	23.26	23.25	24.00
		50	0	21.88	22.13	22.21	23.00
		50	25	21.98	22.10	22.08	23.00
		50	50	22.10	22.27	22.17	23.00
		100	0	21.99	22.13	22.20	23.00
	16QAM	1	0	22.38	22.45	22.57	23.00
		1	50	22.42	22.46	22.53	23.00
		1	99	22.39	22.53	22.45	23.00
		50	0	20.87	21.12	21.05	22.00
		50	25	20.84	20.96	21.00	22.00
		50	50	21.05	21.19	21.03	22.00
		100	0	20.98	21.12	21.02	22.00
	64QAM	1	0	21.03	21.19	21.10	22.00
		1	50	21.06	21.16	21.11	22.00
		1	99	21.08	21.05	21.01	22.00
		50	0	19.99	20.03	20.01	21.00
		50	25	19.87	19.80	19.98	21.00
		50	50	19.89	19.90	19.92	21.00
		100	0	19.95	20.02	20.11	21.00

LTE FDD Band 7 (Hotspot on+Receiver on) (Hotspot on+Receiver off+SAR sensor on Level D7) (sensor off+hotspot on)				Conducted Power(dBm)			Tune-up Limit
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			
				20775/2502.5	21100/2535	21425/2567.5	
5MHz	QPSK	1	0	19.44	19.59	19.67	20.50
		1	13	19.38	19.54	19.52	20.50
		1	24	19.70	19.66	19.76	20.50
		12	0	19.33	19.59	19.58	20.50
		12	6	19.38	19.47	19.52	20.50
		12	13	19.36	19.46	19.65	20.50
		25	0	19.34	19.54	19.61	20.50
	16QAM	1	0	19.87	19.95	20.00	20.50
		1	13	19.59	19.82	19.79	20.50
		1	24	19.76	20.02	19.83	20.50
		12	0	19.27	19.47	19.32	20.50
		12	6	19.33	19.33	19.49	20.50
		12	13	19.40	19.59	19.46	20.50
		25	0	19.30	19.47	19.39	20.50
	64QAM	1	0	19.29	19.51	19.68	20.50
		1	13	19.30	19.57	19.70	20.50
		1	24	19.50	19.63	19.68	20.50
		12	0	19.39	19.49	19.58	20.50
		12	6	19.38	19.36	19.45	20.50
		12	13	19.35	19.43	19.40	20.50
		25	0	19.31	19.56	19.53	20.50
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
10MHz	QPSK	1	0	19.46	19.60	19.70	20.50
		1	25	19.41	19.59	19.56	20.50
		1	49	19.72	19.70	19.79	20.50
		25	0	19.36	19.64	19.62	20.50
		25	13	19.41	19.52	19.56	20.50
		25	25	19.38	19.50	19.70	20.50
		50	0	19.42	19.56	19.65	20.50
	16QAM	1	0	19.89	19.98	20.02	20.50
		1	25	19.62	19.86	19.82	20.50
		1	49	19.79	20.04	19.86	20.50
		25	0	19.30	19.52	19.36	20.50
		25	13	19.35	19.37	19.52	20.50
		25	25	19.43	19.64	19.50	20.50
		50	0	19.33	19.52	19.43	20.50

Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit	
				20825/2507.5	21100/2535	21375/2562.5		
	64QAM	1	0	19.31	19.54	19.70	20.50	
		1	25	19.33	19.61	19.73	20.50	
		1	49	19.53	19.65	19.71	20.50	
		25	0	19.42	19.54	19.62	20.50	
		25	13	19.40	19.40	19.48	20.50	
		25	25	19.38	19.48	19.44	20.50	
		50	0	19.34	19.61	19.57	20.50	
15MHz	QPSK	1	0	19.45	19.56	19.68	20.50	
		1	38	19.39	19.58	19.53	20.50	
		1	74	19.69	19.65	19.75	20.50	
		36	0	19.34	19.60	19.59	20.50	
		36	18	19.38	19.47	19.52	20.50	
		36	39	19.35	19.47	19.66	20.50	
		75	0	19.40	19.52	19.60	20.50	
	16QAM	1	0	19.84	19.96	20.00	20.50	
		1	38	19.60	19.83	19.80	20.50	
		1	74	19.76	20.00	19.83	20.50	
		36	0	19.27	19.50	19.33	20.50	
		36	18	19.32	19.32	19.48	20.50	
		36	39	19.41	19.60	19.47	20.50	
		75	0	19.30	19.47	19.39	20.50	
	64QAM	1	0	19.26	19.52	19.68	20.50	
		1	38	19.31	19.58	19.71	20.50	
		1	74	19.50	19.61	19.68	20.50	
		36	0	19.39	19.52	19.59	20.50	
		36	18	19.37	19.35	19.44	20.50	
		36	39	19.36	19.44	19.41	20.50	
		75	0	19.31	19.56	19.53	20.50	
	Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
					20850/2510	21100/2535	21350/2560	
	20MHz	QPSK	1	0	19.42	19.52	19.65	20.50
			1	50	19.38	19.54	19.51	20.50
			1	99	19.67	19.64	19.72	20.50
			50	0	19.31	19.55	19.55	20.50
			50	25	19.36	19.43	19.49	20.50
50			50	19.32	19.42	19.62	20.50	
100			0	19.37	19.47	19.56	20.50	
16QAM		1	0	19.82	19.92	19.95	20.50	
		1	50	19.56	19.81	19.76	20.50	
		1	99	19.74	19.97	19.81	20.50	
		50	0	19.24	19.46	19.30	20.50	

		50	25	19.29	19.30	19.45	20.50
		50	50	19.38	19.55	19.43	20.50
		100	0	19.28	19.43	19.36	20.50
	64QAM	1	0	19.24	19.48	19.63	20.50
		1	50	19.27	19.56	19.67	20.50
		1	99	19.48	19.58	19.66	20.50
		50	0	19.36	19.48	19.56	20.50
		50	25	19.34	19.33	19.41	20.50
		50	50	19.33	19.39	19.37	20.50
		100	0	19.29	19.52	19.50	20.50

LTE FDD Band 7 (Receiver off+SAR sensor on Level D1&D2)				Conducted Power(dBm)			Tune-up Limit
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			
				20775/2502.5	21100/2535	21425/2567.5	
5MHz	QPSK	1	0	20.80	20.89	21.02	21.50
		1	13	20.69	20.93	20.91	21.50
		1	24	20.84	21.09	21.14	21.50
		12	0	19.73	19.98	19.97	21.50
		12	6	19.76	19.93	20.00	21.50
		12	13	19.87	19.91	20.04	21.50
		25	0	19.77	19.99	20.06	21.50
	16QAM	1	0	20.09	19.70	20.27	21.50
		1	13	19.94	19.83	20.11	21.50
		1	24	20.01	20.07	20.13	21.50
		12	0	19.90	19.60	19.66	21.50
		12	6	19.90	19.67	19.59	21.50
		12	13	19.90	19.73	19.54	21.50
		25	0	19.80	19.65	19.63	21.50
	64QAM	1	0	19.74	19.82	19.85	21.50
		1	13	19.82	19.87	19.91	21.50
		1	24	19.79	19.88	19.87	21.50
		12	0	20.09	20.04	20.14	21.00
		12	6	20.05	20.07	20.15	21.00
		12	13	20.00	20.06	20.12	21.00
		25	0	20.01	19.91	20.03	21.00
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
10MHz	QPSK			20800/2505	21100/2535	21400/2565	
		1	0	20.81	20.88	21.04	21.50
		1	25	20.70	20.97	20.93	21.50
		1	49	20.85	21.11	21.16	21.50
		25	0	19.74	20.02	19.99	21.50
		25	13	19.78	19.96	20.03	21.50

		25	25	19.87	19.91	20.08	21.50
		50	0	19.77	20.00	20.07	21.50
	16QAM	1	0	20.08	19.68	20.27	21.50
		1	25	19.96	19.86	20.09	21.50
		1	49	20.02	20.05	20.15	21.50
		25	0	19.88	19.64	19.67	21.50
		25	13	19.89	19.66	19.60	21.50
		25	25	19.92	19.77	19.53	21.50
		50	0	19.79	19.67	19.63	21.50
		64QAM	1	0	19.74	19.81	19.86
	1		25	19.84	19.89	19.91	21.50
	1		49	19.79	19.85	19.88	21.50
	25		0	20.11	20.08	20.13	21.00
	25		13	20.03	20.08	20.14	21.00
	25		25	20.01	20.07	20.15	21.00
	50		0	20.03	19.94	20.04	21.00
	Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)		
20825/2507.5					21100/2535	21375/2562.5	
15MHz	QPSK	1	0	20.81	20.86	21.03	21.50
		1	38	20.70	20.97	20.92	21.50
		1	74	20.83	21.08	21.13	21.50
		36	0	19.74	19.99	19.98	21.50
		36	18	19.76	19.93	20.00	21.50
		36	39	19.86	19.92	20.05	21.50
		75	0	19.80	19.97	20.05	21.50
	16QAM	1	0	20.06	19.71	20.27	21.50
		1	38	19.95	19.84	20.12	21.50
		1	74	20.01	20.05	20.13	21.50
		36	0	19.90	19.63	19.67	21.50
		36	18	19.89	19.66	19.58	21.50
		36	39	19.91	19.74	19.55	21.50
		75	0	19.80	19.65	19.63	21.50
	64QAM	1	0	19.71	19.83	19.85	21.50
		1	38	19.83	19.88	19.92	21.50
		1	74	19.79	19.86	19.87	21.50
		36	0	20.09	20.07	20.15	21.00
		36	18	20.04	20.06	20.14	21.00
		36	39	20.01	20.07	20.13	21.00
		75	0	20.01	19.91	20.03	21.00
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				20850/2510	21100/2535	21350/2560	
20MHz	QPSK	1	0	20.78	20.82	21.00	21.50
		1	50	20.69	20.93	20.90	21.50

		1	99	20.81	21.07	21.10	21.50
		50	0	19.71	19.94	19.94	21.50
		50	25	19.74	19.89	19.97	21.50
		50	50	19.83	19.87	20.01	21.50
		100	0	19.77	19.92	20.01	21.50
	16QAM	1	0	20.04	19.67	20.22	21.50
		1	50	19.91	19.82	20.08	21.50
		1	99	19.99	20.02	20.11	21.50
		50	0	19.87	19.59	19.64	21.50
		50	25	19.86	19.64	19.55	21.50
		50	50	19.88	19.69	19.51	21.50
		100	0	19.78	19.61	19.60	21.50
	64QAM	1	0	19.69	19.79	19.80	21.50
		1	50	19.79	19.86	19.88	21.50
		1	99	19.77	19.83	19.85	21.50
		50	0	20.06	20.03	20.12	21.00
		50	25	20.01	20.04	20.11	21.00
		50	50	19.98	20.02	20.09	21.00
		100	0	19.99	19.87	20.00	21.00

LTE FDD Band 7 (Hotspot on+Receiver off+SAR sensor on Level D3)				Conducted Power(dBm)			Tune-up Limit
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			
				20775/2502.5	21100/2535	21425/2567.5	
5MHz	QPSK	1	0	18.27	18.40	18.57	19.00
		1	13	18.04	18.14	18.25	19.00
		1	24	18.27	18.44	18.47	19.00
		12	0	18.05	18.22	18.32	19.00
		12	6	18.12	18.24	18.28	19.00
		12	13	18.32	18.29	18.33	19.00
		25	0	18.19	18.30	18.37	19.00
	16QAM	1	0	18.06	18.66	18.60	19.00
		1	13	17.94	18.47	18.34	19.00
		1	24	18.15	18.79	18.44	19.00
		12	0	18.05	18.25	18.12	19.00
		12	6	18.12	18.23	18.16	19.00
		12	13	18.22	18.08	18.24	19.00
		25	0	18.20	18.28	18.29	19.00
	64QAM	1	0	18.17	18.16	18.25	19.00
		1	13	18.25	18.17	18.21	19.00
		1	24	18.13	18.18	18.17	19.00
		12	0	18.16	18.15	18.19	19.00
		12	6	18.24	18.13	18.16	19.00

Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit	
				20800/2505	21100/2535	21400/2565		
10MHz	QPSK	12	13	18.17	19.12	18.12	19.00	
		25	0	18.22	18.26	18.26	19.00	
		1	0	18.28	18.39	18.59	19.00	
		1	25	18.05	18.18	18.27	19.00	
		1	49	18.28	18.46	18.49	19.00	
		25	0	18.06	18.26	18.34	19.00	
		25	13	18.14	18.27	18.31	19.00	
	16QAM	25	25	18.32	18.29	18.37	19.00	
		50	0	18.19	18.31	18.38	19.00	
		1	0	18.05	18.64	18.60	19.00	
		1	25	17.96	18.50	18.32	19.00	
		1	49	18.16	18.77	18.46	19.00	
		25	0	18.03	18.29	18.13	19.00	
		25	13	18.11	18.22	18.17	19.00	
	64QAM	25	25	18.24	18.12	18.23	19.00	
		50	0	18.19	18.30	18.29	19.00	
		1	0	18.17	18.15	18.26	19.00	
		1	25	18.27	18.19	18.21	19.00	
		1	49	18.13	18.15	18.18	19.00	
		25	0	18.18	18.19	18.18	19.00	
		25	13	18.22	18.14	18.15	19.00	
	15MHz	QPSK	25	25	18.18	19.13	18.15	19.00
			50	0	18.24	18.29	18.27	19.00
			1	0	18.28	18.37	18.58	19.00
1			38	18.05	18.18	18.26	19.00	
1			74	18.26	18.43	18.46	19.00	
36			0	18.06	18.23	18.33	19.00	
36			18	18.12	18.24	18.28	19.00	
16QAM		36	39	18.31	18.30	18.34	19.00	
		75	0	18.22	18.28	18.36	19.00	
		1	0	18.03	18.67	18.60	19.00	
		1	38	17.95	18.48	18.35	19.00	
		1	74	18.15	18.77	18.44	19.00	
		36	0	18.05	18.28	18.13	19.00	
		36	18	18.11	18.22	18.15	19.00	
64QAM		36	39	18.23	18.09	18.25	19.00	
		75	0	18.20	18.28	18.29	19.00	
		1	0	18.14	18.17	18.25	19.00	
			1	38	18.26	18.18	18.22	19.00

Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				20850/2510	21100/2535	21350/2560	
20MHz	QPSK	1	74	18.13	18.16	18.17	19.00
		36	0	18.16	18.18	18.20	19.00
		36	18	18.23	18.12	18.15	19.00
		36	39	18.18	19.13	18.13	19.00
		75	0	18.22	18.26	18.26	19.00
		1	0	18.25	18.33	18.55	19.00
		1	50	18.04	18.14	18.24	19.00
	16QAM	1	99	18.24	18.42	18.43	19.00
		50	0	18.03	18.18	18.29	19.00
		50	25	18.10	18.20	18.25	19.00
		50	50	18.28	18.25	18.30	19.00
		100	0	18.19	18.23	18.32	19.00
		1	0	18.01	18.63	18.55	19.00
		1	50	17.91	18.46	18.31	19.00
	64QAM	1	99	18.13	18.74	18.42	19.00
		50	0	18.02	18.24	18.10	19.00
		50	25	18.08	18.20	18.12	19.00
		50	50	18.20	18.04	18.21	19.00
		100	0	18.18	18.24	18.26	19.00
		1	0	18.12	18.13	18.20	19.00
		1	50	18.22	18.16	18.18	19.00
	64QAM	1	99	18.11	18.13	18.15	19.00
		50	0	18.13	18.14	18.17	19.00
		50	25	18.20	18.10	18.12	19.00
		50	50	18.15	19.08	18.09	19.00
		100	0	18.20	18.22	18.23	19.00

LTE FDD Band 7 (Hotspot on+Receiver off+SAR sensor on Level D1&D2)				Conducted Power(dBm)			Tune-up Limit
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			
				20775/2502.5	21100/2535	21425/2567.5	
5MHz	QPSK	1	0	17.30	17.38	17.51	18.00
		1	13	16.94	17.25	17.21	18.00
		1	24	17.39	17.40	17.31	18.00
		12	0	17.02	17.17	17.15	18.00
		12	6	17.15	17.28	17.19	18.00
		12	13	17.19	17.32	17.20	18.00
		25	0	17.07	17.25	17.18	18.00
	16QAM	1	0	17.28	17.38	17.26	18.00
		1	13	17.25	17.29	17.20	18.00
		1	24	17.20	17.32	17.28	18.00

Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit	
				20800/2505	21100/2535	21400/2565		
10MHz	64QAM	12	0	17.05	17.17	17.29	18.00	
		12	6	17.05	17.09	17.18	18.00	
		12	13	17.00	17.08	17.12	18.00	
		25	0	17.10	17.18	17.20	18.00	
		1	0	17.11	17.14	17.20	18.00	
		1	13	17.12	17.17	17.16	18.00	
		1	24	17.15	17.25	17.23	18.00	
		12	0	17.18	17.18	17.10	18.00	
		12	6	17.20	17.22	17.26	18.00	
	12	13	17.23	17.22	17.13	18.00		
	25	0	17.25	17.29	17.24	18.00		
	10MHz	QPSK	1	0	17.31	17.37	17.53	18.00
			1	25	16.95	17.29	17.23	18.00
			1	49	17.40	17.42	17.33	18.00
			25	0	17.03	17.21	17.17	18.00
			25	13	17.17	17.31	17.22	18.00
			25	25	17.19	17.32	17.24	18.00
			50	0	17.07	17.26	17.19	18.00
16QAM		1	0	17.27	17.36	17.26	18.00	
		1	25	17.27	17.32	17.18	18.00	
		1	49	17.21	17.30	17.30	18.00	
		25	0	17.03	17.21	17.30	18.00	
		25	13	17.04	17.08	17.19	18.00	
		25	25	17.02	17.12	17.11	18.00	
		50	0	17.09	17.20	17.20	18.00	
64QAM		1	0	17.11	17.13	17.21	18.00	
		1	25	17.14	17.19	17.16	18.00	
		1	49	17.15	17.22	17.24	18.00	
		25	0	17.20	17.22	17.09	18.00	
		25	13	17.18	17.23	17.25	18.00	
		25	25	17.24	17.23	17.16	18.00	
		50	0	17.27	17.32	17.25	18.00	
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit	
				20825/2507.5	21100/2535	21375/2562.5		
15MHz	QPSK	1	0	17.31	17.35	17.52	18.00	
		1	38	16.95	17.29	17.22	18.00	
		1	74	17.38	17.39	17.30	18.00	
		36	0	17.03	17.18	17.16	18.00	
		36	18	17.15	17.28	17.19	18.00	
		36	39	17.18	17.33	17.21	18.00	
		75	0	17.10	17.23	17.17	18.00	

	16QAM	1	0	17.25	17.39	17.26	18.00
		1	38	17.26	17.30	17.21	18.00
		1	74	17.20	17.30	17.28	18.00
		36	0	17.05	17.20	17.30	18.00
		36	18	17.04	17.08	17.17	18.00
		36	39	17.01	17.09	17.13	18.00
		75	0	17.10	17.18	17.20	18.00
	64QAM	1	0	17.08	17.15	17.20	18.00
		1	38	17.13	17.18	17.17	18.00
		1	74	17.15	17.23	17.23	18.00
		36	0	17.18	17.21	17.11	18.00
		36	18	17.19	17.21	17.25	18.00
		36	39	17.24	17.23	17.14	18.00
		75	0	17.25	17.29	17.24	18.00
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				20850/2510	21100/2535	21350/2560	
20MHz	QPSK	1	0	17.28	17.31	17.49	18.00
		1	50	16.94	17.25	17.20	18.00
		1	99	17.36	17.38	17.27	18.00
		50	0	17.00	17.13	17.12	18.00
		50	25	17.13	17.24	17.16	18.00
		50	50	17.15	17.28	17.17	18.00
		100	0	17.07	17.18	17.13	18.00
	16QAM	1	0	17.23	17.35	17.21	18.00
		1	50	17.22	17.28	17.17	18.00
		1	99	17.18	17.27	17.26	18.00
		50	0	17.02	17.16	17.27	18.00
		50	25	17.01	17.06	17.14	18.00
		50	50	16.98	17.04	17.09	18.00
		100	0	17.08	17.14	17.17	18.00
	64QAM	1	0	17.06	17.11	17.15	18.00
		1	50	17.09	17.16	17.13	18.00
		1	99	17.13	17.20	17.21	18.00
		50	0	17.15	17.17	17.08	18.00
		50	25	17.16	17.19	17.22	18.00
		50	50	17.21	17.18	17.10	18.00
		100	0	17.23	17.25	17.21	18.00

LTE FDD Band 7 (Receiver off+SAR sensor on Level D3)				Conducted Power(dBm)			Tune-up Limit
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			
				20775/2502.5	21100/2535	21425/2567.5	
5MHz	QPSK	1	0	21.33	21.49	21.61	22.50

		1	13	21.11	21.22	21.29	22.50
		1	24	21.33	21.51	21.54	22.50
		12	0	21.10	21.30	21.36	22.50
		12	6	21.17	21.28	21.37	22.50
		12	13	21.40	21.37	21.40	22.50
		25	0	21.23	21.38	21.41	22.50
	16QAM	1	0	21.15	21.70	21.65	22.50
		1	13	20.98	21.53	21.39	22.50
		1	24	21.21	21.85	21.49	22.50
		12	0	21.11	21.31	21.18	22.00
		12	6	21.16	21.29	21.23	22.00
		12	13	21.30	21.15	21.30	22.00
	64QAM	25	0	21.27	21.34	21.33	22.00
		1	0	21.23	21.23	21.29	22.00
		1	13	21.32	21.22	21.26	22.00
		1	24	21.19	21.27	21.22	22.00
		12	0	20.23	20.20	20.27	21.00
		12	6	20.29	20.18	20.25	21.00
		12	13	20.26	20.34	20.16	21.00
	25	0	20.29	20.35	20.31	21.00	
	Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)		
20800/2505					21100/2535	21400/2565	
10MHz	QPSK	1	0	21.21	21.32	21.53	22.50
		1	25	20.97	21.10	21.23	22.50
		1	49	21.22	21.39	21.41	22.50
		25	0	21.01	21.21	21.27	22.50
		25	13	21.09	21.18	21.26	22.50
		25	25	21.28	21.21	21.32	22.50
		50	0	21.10	21.24	21.34	22.50
	16QAM	1	0	21.00	21.58	21.53	22.50
		1	25	20.91	21.45	21.26	22.50
		1	49	21.09	21.73	21.41	22.50
		25	0	20.99	21.20	21.07	22.00
		25	13	21.03	21.14	21.09	22.00
		25	25	21.17	21.03	21.14	22.00
		50	0	21.13	21.22	21.23	22.00
	64QAM	1	0	21.13	21.10	21.21	22.00
		1	25	21.21	21.14	21.14	22.00
		1	49	21.09	21.11	21.10	22.00
		25	0	20.13	20.15	20.14	21.00
		25	13	20.14	20.05	20.08	21.00
		25	25	20.10	20.45	20.11	21.00
		50	0	20.24	20.29	20.27	21.00

Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				20825/2507.5	21100/2535	21375/2562.5	
15MHz	QPSK	1	0	21.33	21.46	21.64	22.50
		1	38	21.11	21.22	21.33	22.50
		1	74	21.32	21.51	21.53	22.50
		36	0	21.11	21.29	21.38	22.50
		36	18	21.21	21.31	21.35	22.50
		36	39	21.39	21.35	21.39	22.50
		75	0	21.27	21.32	21.45	22.50
	16QAM	1	0	21.11	21.75	21.64	22.50
		1	38	21.03	21.52	21.44	22.50
		1	74	21.22	21.84	21.52	22.50
		36	0	21.10	21.36	21.20	22.00
		36	18	21.19	21.30	21.19	22.00
		36	39	21.28	21.15	21.33	22.00
		75	0	21.28	21.32	21.38	22.00
	64QAM	1	0	21.21	21.22	21.33	22.00
		1	38	21.30	21.22	21.29	22.00
		1	74	21.22	21.23	21.24	22.00
		36	0	20.21	20.26	20.27	21.00
		36	18	20.32	20.21	20.22	21.00
		36	39	20.25	20.22	20.19	21.00
		75	0	20.31	20.31	20.34	21.00
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				20850/2510	21100/2535	21350/2560	
20MHz	QPSK	1	0	21.49	21.28	21.69	22.50
		1	50	20.98	21.07	21.20	22.50
		1	99	21.15	21.37	21.37	22.50
		50	0	20.94	21.10	21.25	22.50
		50	25	21.02	21.12	21.20	22.50
		50	50	21.22	21.21	21.23	22.50
		100	0	21.14	21.18	21.23	22.50
	16QAM	1	0	20.92	21.58	21.47	22.50
		1	50	20.86	21.42	21.22	22.50
		1	99	21.09	21.68	21.38	22.50
		50	0	20.93	21.17	21.02	22.00
		50	25	21.02	21.12	21.03	22.00
		50	50	21.15	20.99	21.12	22.00
		100	0	21.13	21.20	21.17	22.00
	64QAM	1	0	21.08	21.06	21.11	22.00
		1	50	21.13	21.10	21.12	22.00
		1	99	21.11	21.13	21.15	22.00
		50	0	20.13	20.14	20.17	21.00

		50	25	20.20	20.10	20.12	21.00
		50	50	20.15	20.38	20.09	21.00
		100	0	20.20	20.22	20.23	21.00

LTE FDD Band 12 (Receiver on) Receiver off+SAR sensor on Level D1&D2 (Receiver off+SAR sensor on Level D3) (Receiver off+SAR sensor on Level D7) (sensor off+hotspot off)				Conducted Power(dBm)			Tune-up Limit
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			
				23017/699.7	23095/707.5	23173/715.3	
1.4MHz	QPSK	1	0	24.06	23.88	23.72	25.00
		1	2	23.91	24.01	23.95	25.00
		1	5	23.81	24.06	23.74	25.00
		3	0	22.90	22.76	22.75	24.00
		3	2	22.82	22.95	22.87	24.00
		3	3	22.99	23.03	23.04	24.00
		6	0	22.96	23.01	22.90	24.00
	16QAM	1	0	23.20	23.25	23.15	24.00
		1	2	22.99	23.22	23.19	24.00
		1	5	23.22	23.15	23.08	24.00
		3	0	21.87	21.66	21.88	23.00
		3	2	21.77	21.96	21.96	23.00
		3	3	21.99	21.84	21.97	23.00
		6	0	21.74	21.92	21.87	23.00
	64QAM	1	0	21.60	21.63	21.71	23.00
		1	2	21.66	21.66	21.79	23.00
		1	5	21.64	21.62	21.68	23.00
		3	0	20.59	20.67	20.70	22.00
		3	2	20.63	20.61	20.65	22.00
		3	3	20.71	20.75	20.73	22.00
		6	0	20.66	20.67	20.62	22.00
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				23025/700.5	23095/707.5	23165/714.5	
3MHz	QPSK	1	0	24.08	23.92	23.75	25.00
		1	7	23.91	24.03	23.99	25.00
		1	14	23.84	24.11	23.78	25.00
		8	0	22.94	22.83	22.82	24.00
		8	4	22.85	23.03	22.93	24.00
		8	7	23.03	23.08	23.08	24.00
		15	0	22.98	23.05	22.93	24.00
	16QAM	1	0	23.23	23.27	23.18	24.00

		1	7	23.02	23.24	23.23	24.00
		1	14	23.24	23.19	23.11	24.00
		8	0	21.92	21.70	21.91	23.00
		8	4	21.82	22.03	22.02	23.00
		8	7	22.03	21.90	22.04	23.00
		15	0	21.77	21.96	21.90	23.00
	64QAM	1	0	21.63	21.65	21.74	23.00
		1	7	21.69	21.68	21.83	23.00
		1	14	21.66	21.66	21.71	23.00
		8	0	20.64	20.71	20.73	22.00
		8	4	20.68	20.68	20.71	22.00
		8	7	20.75	20.81	20.80	22.00
		15	0	20.68	20.73	20.67	22.00
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				23035/701.5	23095/707.5	23155/713.5	
5MHz	QPSK	1	0	24.05	23.90	23.71	25.00
		1	13	23.89	23.99	23.96	25.00
		1	24	23.81	24.06	23.74	25.00
		12	0	22.91	22.78	22.78	24.00
		12	6	22.83	22.99	22.88	24.00
		12	13	23.01	23.06	23.04	24.00
		25	0	22.96	23.04	22.91	24.00
	16QAM	1	0	23.20	23.23	23.15	24.00
		1	13	22.99	23.22	23.20	24.00
		1	24	23.21	23.17	23.07	24.00
		12	0	21.90	21.66	21.88	23.00
		12	6	21.79	21.98	21.98	23.00
		12	13	22.00	21.85	22.00	23.00
		25	0	21.75	21.92	21.85	23.00
	64QAM	1	0	21.60	21.61	21.71	23.00
		1	13	21.66	21.66	21.80	23.00
		1	24	21.63	21.64	21.67	23.00
		12	0	20.62	20.67	20.70	22.00
		12	6	20.65	20.63	20.67	22.00
		12	13	20.72	20.76	20.76	22.00
		25	0	20.66	20.69	20.62	22.00
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				23060/704	23095/707.5	23130/711	
10MHz	QPSK	1	0	24.03	23.83	23.69	25.00
		1	25	23.89	23.99	23.95	25.00
		1	49	23.78	24.04	23.70	25.00
		25	0	22.89	22.74	22.75	24.00
		25	13	22.81	22.95	22.85	24.00

		25	25	22.97	23.02	23.01	24.00
		50	0	22.96	22.97	22.86	24.00
	16QAM	1	0	23.15	23.20	23.10	24.00
		1	25	22.96	23.21	23.17	24.00
		1	49	23.19	23.12	23.05	24.00
		25	0	21.87	21.65	21.86	23.00
		25	13	21.75	21.95	21.94	23.00
		25	25	21.98	21.81	21.97	23.00
		50	0	21.73	21.88	21.82	23.00
		64QAM	1	0	21.55	21.58	21.66
	1		25	21.63	21.65	21.77	23.00
	1		49	21.61	21.59	21.65	23.00
	25		0	20.59	20.66	20.68	22.00
	25		13	20.61	20.60	20.63	22.00
	25		25	20.70	20.72	20.73	22.00
	50		0	20.64	20.65	20.59	22.00

LTE FDD Band 12 (Hotspot on+Receiver on) (Hotspot on+Receiver off+SAR sensor on Level D1&D2) (Hotspot on+Receiver off+SAR sensor on Level D3) (Hotspot on+Receiver off+SAR sensor on Level D7) (sensor off+hotspot on)				Conducted Power(dBm)			Tune-up Limit
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			
				23017/699.7	23095/707.5	23173/715.3	
1.4MHz	QPSK	1	0	23.25	23.11	23.20	24.50
		1	2	23.24	23.39	23.21	24.50
		1	5	23.40	23.25	23.13	24.50
		3	0	22.57	22.66	22.48	24.50
		3	2	22.72	22.66	22.52	24.50
		3	3	22.73	22.62	22.57	24.50
		6	0	22.67	22.64	22.68	24.00
	16QAM	1	0	22.84	23.21	22.93	24.00
		1	2	22.96	22.96	22.92	24.00
		1	5	23.12	23.08	22.92	24.00
		3	0	21.48	21.50	21.51	24.00
		3	2	21.48	21.54	21.50	24.00
		3	3	21.70	21.61	21.54	24.00
		6	0	21.69	21.69	21.58	23.00
	64QAM	1	0	22.68	22.75	22.72	23.00
		1	2	22.70	22.62	22.74	23.00
		1	5	22.52	22.53	22.91	23.00

Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit	
				23025/700.5	23095/707.5	23165/714.5		
		3	0	21.44	21.65	21.47	23.00	
		3	2	21.44	21.66	21.52	23.00	
		3	3	21.51	21.64	21.56	23.00	
		6	0	21.54	21.73	21.56	22.00	
3MHz	QPSK	1	0	23.27	23.15	23.23	24.50	
		1	7	23.27	23.44	23.25	24.50	
		1	14	23.43	23.30	23.17	24.50	
		8	0	22.65	22.76	22.59	24.00	
		8	4	22.82	22.74	22.62	24.00	
		8	7	22.81	22.71	22.65	24.00	
		15	0	22.70	22.68	22.71	24.00	
	16QAM	1	0	22.87	23.23	22.96	24.00	
		1	7	22.99	23.01	22.96	24.00	
		1	14	23.14	23.12	22.95	24.00	
		8	0	21.57	21.61	21.61	23.00	
		8	4	21.57	21.65	21.60	23.00	
		8	7	21.78	21.71	21.65	23.00	
		15	0	21.72	21.73	21.61	23.00	
	64QAM	1	0	22.71	22.77	22.75	23.00	
		1	7	22.73	22.67	22.78	23.00	
		1	14	22.54	22.57	22.94	23.00	
		8	0	21.53	21.76	21.57	22.00	
		8	4	21.53	21.77	21.62	22.00	
		8	7	21.59	21.74	21.67	22.00	
		15	0	21.57	21.77	21.59	22.00	
	Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
					23035/701.5	23095/707.5	23155/713.5	
	5MHz	QPSK	1	0	23.24	23.13	23.19	24.50
1			13	23.25	23.40	23.22	24.50	
1			24	23.40	23.25	23.13	24.50	
12			0	22.62	22.71	22.55	24.00	
12			6	22.80	22.70	22.57	24.00	
12			13	22.79	22.69	22.61	24.00	
25			0	22.68	22.67	22.69	24.00	
16QAM		1	0	22.84	23.19	22.93	24.00	
		1	13	22.96	22.99	22.93	24.00	
		1	24	23.11	23.10	22.91	24.00	
		12	0	21.55	21.57	21.58	23.00	
		12	6	21.54	21.60	21.56	23.00	
		12	13	21.75	21.66	21.61	23.00	
		25	0	21.70	21.69	21.56	23.00	

Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit	
				23060/704	23095/707.5	23130/711		
10MHz	64QAM	1	0	22.68	22.73	22.72	23.00	
		1	13	22.70	22.65	22.75	23.00	
		1	24	22.51	22.55	22.90	23.00	
		12	0	21.51	21.72	21.54	22.00	
		12	6	21.50	21.72	21.58	22.00	
		12	13	21.56	21.69	21.63	22.00	
		25	0	21.55	21.73	21.54	22.00	
	QPSK	1	0	23.22	23.06	23.17	24.50	
		1	25	23.25	23.40	23.21	24.50	
		1	49	23.37	23.23	23.09	24.50	
		25	0	22.60	22.67	22.52	24.00	
		25	13	22.78	22.66	22.54	24.00	
		25	25	22.75	22.65	22.58	24.00	
		50	0	22.71	22.60	22.64	24.00	
		16QAM	1	0	22.79	23.16	22.88	24.00
			1	25	22.93	22.98	22.90	24.00
			1	49	23.09	23.05	22.89	24.00
			25	0	21.52	21.56	21.56	23.00
			25	13	21.50	21.57	21.52	23.00
			25	25	21.73	21.62	21.58	23.00
			50	0	21.68	21.65	21.53	23.00
64QAM	1	0	22.63	22.70	22.67	23.00		
	1	25	22.67	22.64	22.72	23.00		
	1	49	22.49	22.50	22.88	23.00		
	25	0	21.48	21.71	21.52	22.00		
	25	13	21.46	21.69	21.54	22.00		
	25	25	21.54	21.65	21.60	22.00		
	50	0	21.53	21.69	21.51	22.00		

LTE FDD Band 17 (Receiver on) (Receiver off+SAR sensor on Level D1&D2) (Receiver off+SAR sensor on Level D3) (Receiver off+SAR sensor on Level D7) (sensor off+hotspot off)				Conducted Power(dBm)			Tune-up Limit
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			
				23755/706.5	23790/710	23825/713.5	
5MHz	QPSK	1	0	23.76	23.85	23.89	25.00
		1	13	23.93	24.03	23.82	25.00
		1	24	23.97	23.92	23.90	25.00
		12	0	22.78	22.83	22.76	24.00

	16QAM	12	6	22.89	22.94	22.82	24.00
		12	13	22.87	22.92	22.90	24.00
		25	0	22.81	22.89	22.85	24.00
		1	0	23.10	23.26	23.03	24.00
		1	13	23.04	23.15	23.06	24.00
		1	24	23.09	23.06	23.12	24.00
		12	0	21.71	21.73	21.88	23.00
		12	6	21.76	21.82	21.88	23.00
		12	13	21.81	21.98	21.80	23.00
	25	0	21.87	21.72	21.72	23.00	
	64QAM	1	0	21.89	21.96	21.88	23.00
		1	13	21.84	21.90	21.86	23.00
		1	24	21.87	21.81	21.81	23.00
		12	0	21.77	21.85	21.88	22.00
		12	6	21.83	21.66	21.91	22.00
		12	13	21.82	21.89	21.80	22.00
		25	0	21.84	21.81	21.84	22.00
	Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)		
23780/709					23790/710	23800/711	
10MHz	QPSK	1	0	23.74	23.78	23.87	25.00
		1	25	23.93	24.03	23.81	25.00
		1	49	23.94	23.90	23.86	25.00
		25	0	22.76	22.79	22.73	24.00
		25	13	22.87	22.90	22.79	24.00
		25	25	22.83	22.88	22.87	24.00
		50	0	22.81	22.82	22.80	24.00
	16QAM	1	0	23.05	23.23	22.98	24.00
		1	25	23.01	23.14	23.03	24.00
		1	49	23.07	23.01	23.10	24.00
		25	0	21.68	21.72	21.86	23.00
		25	13	21.72	21.79	21.84	23.00
		25	25	21.79	21.94	21.77	23.00
		50	0	21.85	21.68	21.69	23.00
	64QAM	1	0	21.84	21.93	21.83	23.00
		1	25	21.81	21.89	21.83	23.00
		1	49	21.85	21.76	21.79	23.00
		25	0	21.74	21.84	21.86	22.00
		25	13	21.79	21.63	21.87	22.00
		25	25	21.80	21.85	21.77	22.00
		50	0	21.82	21.77	21.81	22.00

LTE FDD Band 17 (Hotspot on+Receiver on) (Hotspot on+Receiver off+SAR sensor on Level D1&D2) (Hotspot on+Receiver off+SAR sensor on Level D3) (Hotspot on+Receiver off+SAR sensor on Level D7) (sensor off+hotspot on)				Conducted Power(dBm)			Tune-up Limit
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			
				23755/706.5	23790/710	23825/713.5	
5MHz	QPSK	1	0	23.14	23.12	23.18	24.50
		1	13	23.24	23.24	23.20	24.50
		1	24	23.35	23.30	23.08	24.50
		12	0	22.58	22.57	22.53	24.00
		12	6	22.72	22.76	22.67	24.00
		12	13	22.65	22.67	22.79	24.00
		25	0	22.49	22.69	22.57	24.00
	16QAM	1	0	23.10	23.20	23.07	24.00
		1	13	23.10	22.79	22.98	24.00
		1	24	23.06	23.07	22.81	24.00
		12	0	21.61	21.51	21.52	23.00
		12	6	21.53	21.54	21.61	23.00
		12	13	21.54	21.60	21.64	23.00
		25	0	21.50	21.59	21.62	23.00
	64QAM	1	0	22.52	22.69	22.87	23.00
		1	13	22.59	22.69	22.57	23.00
		1	24	22.68	22.75	22.53	23.00
		12	0	21.54	21.47	21.48	22.00
		12	6	21.61	21.52	21.51	22.00
		12	13	21.57	21.80	21.62	22.00
		25	0	21.49	21.66	21.65	22.00
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
10MHz	QPSK	1	0	23.12	23.05	23.16	24.50
		1	25	23.24	23.24	23.19	24.50
		1	49	23.32	23.28	23.04	24.50
		25	0	22.56	22.53	22.50	24.00
		25	13	22.70	22.72	22.64	24.00
		25	25	22.61	22.63	22.76	24.00
		50	0	22.52	22.62	22.52	24.00
	16QAM	1	0	23.05	23.17	23.02	24.00
		1	25	23.07	22.78	22.95	24.00
		1	49	23.04	23.02	22.79	24.00
		25	0	21.58	21.50	21.50	23.00
		23780/709	23790/710	23800/711			

		25	13	21.49	21.51	21.57	23.00
		25	25	21.52	21.56	21.61	23.00
		50	0	21.48	21.55	21.59	23.00
	64QAM	1	0	22.47	22.66	22.82	23.00
		1	25	22.56	22.68	22.54	23.00
		1	49	22.66	22.70	22.51	23.00
		25	0	21.51	21.46	21.46	22.00
		25	13	21.57	21.49	21.47	22.00
		25	25	21.55	21.76	21.59	22.00
50	0	21.47	21.62	21.62	22.00		

LTE FDD Band 26 (Receiver on) (Receiver off+SAR sensor on Level D1&D2) (Receiver off+SAR sensor on Level D3) (Receiver off+SAR sensor on Level D7) (sensor off+hotspot off)				Conducted Power(dBm)			Tune-up Limit
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			
				26697/814.7	26865/831.5	27033/848.3	
1.4MHz	QPSK	1	0	23.65	23.63	23.64	25.00
		1	2	23.72	23.73	23.62	25.00
		1	5	23.70	23.63	23.51	25.00
		3	0	23.68	23.73	23.74	25.00
		3	2	23.53	23.71	23.40	25.00
		3	3	23.43	23.39	23.43	25.00
		6	0	22.60	22.57	22.66	24.00
	16QAM	1	0	23.13	22.93	23.05	24.00
		1	2	23.11	23.01	22.93	24.00
		1	5	22.88	22.92	22.87	24.00
		3	0	22.62	22.52	22.55	24.00
		3	2	22.47	22.45	22.43	24.00
		3	3	22.43	22.34	22.36	23.00
		6	0	21.60	21.63	21.68	23.00
	64QAM	1	0	22.05	21.96	22.05	23.00
		1	2	21.95	22.01	22.01	23.00
		1	5	22.11	22.20	22.12	23.00
		3	0	22.55	22.42	22.40	23.00
		3	2	22.33	22.47	22.54	23.00
		3	3	22.50	22.46	22.28	23.00
		6	0	21.11	21.22	21.20	22.00
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				26705/815.5	26865/831.5	27025/847.5	
3MHz	QPSK	1	0	23.66	23.66	23.66	25.00

		1	7	23.71	23.77	23.67	25.00	
		1	14	23.72	23.67	23.54	25.00	
		8	0	22.78	22.85	22.87	24.00	
		8	4	22.66	22.82	22.51	24.00	
		8	7	22.53	22.52	22.54	24.00	
		15	0	22.64	22.62	22.71	24.00	
	16QAM	1	0	23.15	22.94	23.07	24.00	
		1	7	23.14	23.03	22.97	24.00	
		1	14	22.90	22.96	22.89	24.00	
		8	0	21.74	21.66	21.68	23.00	
		8	4	21.57	21.57	21.54	23.00	
		8	7	21.53	21.46	21.49	23.00	
	64QAM	15	0	21.64	21.68	21.70	23.00	
		1	0	22.07	21.97	22.07	23.00	
		1	7	21.98	22.03	22.03	23.00	
		1	14	22.13	22.19	22.14	23.00	
		8	0	21.67	21.56	21.53	22.00	
		8	4	21.43	21.59	21.65	22.00	
		8	7	21.60	21.58	21.41	22.00	
	Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
					26715/816.5	26865/831.5	27015/846.5	
5MHz	QPSK	1	0	23.64	23.65	23.63	25.00	
		1	13	23.68	23.72	23.63	25.00	
		1	24	23.70	23.63	23.51	25.00	
		12	0	22.75	22.80	22.83	24.00	
		12	6	22.63	22.77	22.47	24.00	
		12	13	22.51	22.48	22.49	24.00	
		25	0	22.60	22.60	22.67	24.00	
	16QAM	1	0	23.13	22.91	23.05	24.00	
		1	13	23.11	22.99	22.94	24.00	
		1	24	22.87	22.94	22.86	24.00	
		12	0	21.71	21.61	21.64	23.00	
		12	6	21.55	21.53	21.51	23.00	
		12	13	21.50	21.41	21.45	23.00	
		25	0	21.61	21.63	21.66	23.00	
	64QAM	1	0	22.05	21.98	22.05	23.00	
		1	13	21.95	22.03	22.00	23.00	
		1	24	22.14	22.17	22.11	23.00	
		12	0	21.64	21.51	21.53	22.00	
		12	6	21.41	21.55	21.62	22.00	
		12	13	21.57	21.53	21.37	22.00	
		25	0	21.12	21.22	21.18	22.00	

Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				26750/820	26865/831.5	26990/844	
10MHz	QPSK	1	0	23.65	23.62	23.64	25.00
		1	25	23.69	23.76	23.64	25.00
		1	49	23.69	23.62	23.50	25.00
		25	0	22.76	22.81	22.84	24.00
		25	13	22.63	22.77	22.47	24.00
		25	25	22.50	22.49	22.50	24.00
		50	0	22.62	22.58	22.66	24.00
	16QAM	1	0	23.10	22.92	23.05	24.00
		1	25	23.12	23.00	22.95	24.00
		1	49	22.87	22.92	22.86	24.00
		25	0	21.71	21.64	21.65	23.00
		25	13	21.54	21.52	21.50	23.00
		25	25	21.51	21.42	21.46	23.00
		50	0	21.61	21.63	21.66	23.00
	64QAM	1	0	22.02	21.95	22.05	23.00
		1	25	21.96	22.00	22.01	23.00
		1	49	22.14	22.18	22.15	23.00
		25	0	21.66	21.58	21.54	22.00
		25	13	21.41	21.56	21.64	22.00
		25	25	21.58	21.54	21.38	22.00
		50	0	21.12	21.22	21.18	22.00
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				26775/822.5	26865/831.5	26965/841.5	
15MHz	QPSK	1	0	23.62	23.58	23.61	25.00
		1	38	23.68	23.72	23.62	25.00
		1	74	23.67	23.61	23.47	25.00
		36	0	22.73	22.76	22.80	24.00
		36	18	22.61	22.73	22.44	24.00
		36	39	22.47	22.44	22.46	24.00
		75	0	22.59	22.53	22.62	24.00
	16QAM	1	0	23.01	22.88	23.00	24.00
		1	38	23.08	22.98	22.91	24.00
		1	74	22.85	22.89	22.84	24.00
		36	0	21.68	21.60	21.62	23.00
		36	18	21.51	21.50	21.47	23.00
		36	39	21.48	21.37	21.42	23.00
		75	0	21.59	21.59	21.63	23.00
	64QAM	1	0	22.00	21.91	22.00	23.00
		1	38	21.92	21.98	21.97	23.00
		1	74	22.08	22.12	22.09	23.00
		36	0	21.61	21.50	21.47	22.00

		36	18	21.37	21.52	21.58	22.00
		36	39	21.55	21.49	21.34	22.00
		75	0	21.10	21.18	21.15	22.00

LTE FDD Band 26 (Hotspot on+Receiver on) (Hotspot on+Receiver off+SAR sensor on Level D1&D2) (Hotspot on+Receiver off+SAR sensor on Level D3) (Hotspot on+Receiver off+SAR sensor on Level D7) (sensor off+hotspot on)				Conducted Power(dBm)			Tune-up Limit
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			
				26697/814.7	26865/831.5	27033/848.3	
1.4MHz	QPSK	1	0	22.66	22.66	22.71	24.00
		1	2	22.74	22.71	22.53	24.00
		1	5	22.69	22.52	22.65	24.00
		3	0	23.67	23.73	23.52	24.00
		3	2	23.51	23.79	23.50	24.00
		3	3	23.56	23.69	23.45	24.00
		6	0	22.57	22.71	22.61	24.00
	16QAM	1	0	23.01	22.80	23.01	24.00
		1	2	22.99	22.87	22.89	24.00
		1	5	22.75	22.89	22.88	24.00
		3	0	22.72	22.69	22.66	24.00
		3	2	22.52	22.68	22.52	24.00
		3	3	22.60	22.40	22.51	24.00
		6	0	21.65	21.62	21.69	23.00
	64QAM	1	0	22.57	22.56	22.83	23.00
		1	2	22.60	22.59	22.49	23.00
		1	5	22.47	22.78	22.69	23.00
		3	0	22.67	22.64	22.52	23.00
		3	2	22.58	22.70	22.42	23.00
		3	3	22.62	22.42	22.47	23.00
		6	0	21.65	21.64	21.67	22.00
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				26705/815.5	26865/831.5	27025/847.5	
3MHz	QPSK	1	0	22.68	22.70	22.74	24.00
		1	7	22.77	22.76	22.57	24.00
		1	14	22.72	22.57	22.69	24.00
		8	0	22.77	22.85	22.65	24.00
		8	4	22.63	22.89	22.62	24.00
		8	7	22.66	22.80	22.55	24.00
		15	0	22.60	22.75	22.64	24.00

	16QAM	1	0	23.04	22.82	23.04	24.00
		1	7	23.02	22.92	22.93	24.00
		1	14	22.77	22.93	22.91	24.00
		8	0	21.83	21.82	21.78	23.00
		8	4	21.63	21.81	21.64	23.00
		8	7	21.70	21.52	21.64	23.00
		15	0	21.68	21.66	21.72	23.00
	64QAM	1	0	22.60	22.58	22.86	23.00
		1	7	22.63	22.64	22.53	23.00
		1	14	22.49	22.82	22.72	23.00
		8	0	21.78	21.77	21.64	22.00
		8	4	21.69	21.83	21.54	22.00
		8	7	21.72	21.54	21.60	22.00
		15	0	21.68	21.68	21.70	22.00
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				26715/816.5	26865/831.5	27015/846.5	
5MHz	QPSK	1	0	22.65	22.68	22.70	24.00
		1	13	22.75	22.72	22.54	24.00
		1	24	22.69	22.52	22.65	24.00
		12	0	22.74	22.80	22.61	24.00
		12	6	22.61	22.85	22.57	24.00
		12	13	22.64	22.78	22.51	24.00
		25	0	22.58	22.74	22.62	24.00
	16QAM	1	0	23.01	22.78	23.01	24.00
		1	13	22.99	22.90	22.90	24.00
		1	24	22.74	22.91	22.87	24.00
		12	0	21.81	21.78	21.75	23.00
		12	6	21.60	21.76	21.60	23.00
		12	13	21.67	21.47	21.60	23.00
		25	0	21.66	21.62	21.67	23.00
	64QAM	1	0	22.57	22.54	22.83	23.00
		1	13	22.60	22.62	22.50	23.00
		1	24	22.46	22.80	22.68	23.00
		12	0	21.76	21.73	21.61	22.00
		12	6	21.66	21.78	21.50	22.00
		12	13	21.69	21.49	21.56	22.00
		25	0	21.66	21.64	21.65	22.00
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				26750/820	26865/831.5	26990/844	
10MHz	QPSK	1	0	22.67	22.69	22.73	24.00
		1	25	22.78	22.77	22.58	24.00
		1	49	22.71	22.56	22.68	24.00
		25	0	22.77	22.85	22.65	24.00

		25	13	22.64	22.90	22.61	24.00	
		25	25	22.66	22.82	22.56	24.00	
		50	0	22.66	22.76	22.66	24.00	
	16QAM		1	0	23.03	22.81	23.03	24.00
			1	25	23.02	22.94	22.93	24.00
			1	49	22.77	22.93	22.90	24.00
			25	0	21.84	21.83	21.79	23.00
			25	13	21.62	21.80	21.63	23.00
			25	25	21.70	21.52	21.64	23.00
			50	0	21.69	21.67	21.71	23.00
			64QAM		1	0	22.59	22.57
	1	25			22.63	22.66	22.53	23.00
	1	49			22.49	22.82	22.71	23.00
	25	0			21.79	21.78	21.65	22.00
	25	13			21.68	21.82	21.53	22.00
	25	25			21.72	21.54	21.60	22.00
50	0	21.69			21.69	21.69	22.00	
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit	
				26775/822.5	26865/831.5	26965/841.5		
15MHz	QPSK	1	0	22.63	22.61	22.68	24.00	
		1	38	22.75	22.72	22.53	24.00	
		1	74	22.66	22.50	22.61	24.00	
		36	0	22.72	22.76	22.58	24.00	
		36	18	22.59	22.81	22.54	24.00	
		36	39	22.60	22.74	22.48	24.00	
		75	0	22.61	22.67	22.57	24.00	
	16QAM		1	0	22.76	22.75	22.96	24.00
			1	38	22.96	22.89	22.87	24.00
			1	74	22.72	22.86	22.85	24.00
			36	0	21.78	21.77	21.73	23.00
			36	18	21.56	21.73	21.56	23.00
			36	39	21.65	21.43	21.57	23.00
			75	0	21.64	21.58	21.64	23.00
	64QAM		1	0	22.52	22.51	22.78	23.00
			1	38	22.57	22.61	22.47	23.00
			1	74	22.44	22.75	22.66	23.00
			36	0	21.73	21.72	21.59	22.00
			36	18	21.62	21.75	21.46	22.00
			36	39	21.67	21.45	21.53	22.00
			75	0	21.64	21.60	21.62	22.00

LTE TDD Band 38 (Receiver on) (Receiver off+SAR sensor on Level D3) (Receiver off+SAR sensor on Level D7) (sensor off+hotspot off)				Conducted Power(dBm)			Tune-up Limit
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			
				37775/2572.5	38000/2595	38225/2617.5	
5MHz	QPSK	1	0	22.96	23.09	23.00	23.63
		1	13	22.77	22.99	22.81	23.63
		1	24	23.13	23.03	23.12	23.63
		12	0	21.89	21.87	21.91	22.63
		12	6	21.81	21.79	21.84	22.63
		12	13	21.89	21.86	21.90	22.63
		25	0	21.83	21.85	21.89	22.63
	16QAM	1	0	22.18	22.27	22.28	22.63
		1	13	22.16	22.17	21.20	22.63
		1	24	22.25	22.25	22.29	22.63
		12	0	20.83	20.76	20.83	21.63
		12	6	20.77	20.71	20.89	21.63
		12	13	20.81	20.80	20.84	21.63
		25	0	20.72	20.70	20.85	21.63
	64QAM	1	0	20.72	20.92	20.82	21.63
		1	13	20.82	20.74	20.73	21.63
		1	24	20.92	20.93	20.99	21.63
		12	0	20.26	20.20	20.19	20.63
		12	6	20.18	20.23	20.30	20.63
		12	13	20.25	20.21	20.16	20.63
		25	0	20.25	20.31	20.35	20.63
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				37800/2575	38000/2595	38200/2615	
10MHz	QPSK	1	0	22.98	23.10	23.03	23.63
		1	25	22.80	23.04	22.85	23.63
		1	49	23.15	23.07	23.15	23.63
		25	0	21.92	21.92	21.95	22.63
		25	13	21.84	21.84	21.88	22.63
		25	25	21.91	21.90	21.95	22.63
		50	0	21.87	21.87	21.93	22.63
	16QAM	1	0	22.20	22.30	22.30	22.63
		1	25	22.19	22.21	21.23	22.63
		1	49	22.28	22.27	22.32	22.63
		25	0	20.86	20.81	20.87	21.63
		25	13	20.79	20.75	20.92	21.63
		25	25	20.84	20.85	20.88	21.63

	64QAM	50	0	20.75	20.75	20.89	21.63
		1	0	20.74	20.91	20.84	21.63
		1	25	20.85	20.74	20.76	21.63
		1	49	20.91	20.95	21.02	21.63
		25	0	20.29	20.25	20.19	20.63
		25	13	20.20	20.27	20.33	20.63
		25	25	20.28	20.26	20.20	20.63
		50	0	20.28	20.36	20.39	20.63
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				37825/2577.5	38000/2595	38175/2612.5	
15MHz	QPSK	1	0	22.97	23.06	23.01	23.63
		1	38	22.78	23.03	22.82	23.63
		1	74	23.12	23.02	23.11	23.63
		36	0	21.90	21.88	21.92	22.63
		36	18	21.81	21.79	21.84	22.63
		36	39	21.88	21.87	21.91	22.63
		75	0	21.85	21.83	21.88	22.63
	16QAM	1	0	22.15	22.28	22.28	22.63
		1	38	22.17	22.18	21.21	22.63
		1	74	22.25	22.23	22.29	22.63
		36	0	20.83	20.79	20.84	21.63
		36	18	20.76	20.70	20.88	21.63
		36	39	20.82	20.81	20.85	21.63
		75	0	20.72	20.70	20.85	21.63
	64QAM	1	0	20.69	20.89	20.82	21.63
		1	38	20.83	20.71	20.74	21.63
		1	74	20.92	20.94	21.03	21.63
		36	0	20.28	20.27	20.20	20.63
		36	18	20.18	20.24	20.32	20.63
		36	39	20.26	20.22	20.17	20.63
		75	0	20.25	20.31	20.35	20.63
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				37850/2580	38000/2595	38150/2610	
20MHz	QPSK	1	0	22.94	23.02	22.98	23.63
		1	50	22.77	22.99	22.80	23.63
		1	99	23.10	23.01	23.08	23.63
		50	0	21.87	21.83	21.88	22.63
		50	25	21.79	21.75	21.81	22.63
		50	50	21.85	21.82	21.87	22.63
		100	0	21.82	21.78	21.84	22.63
	16QAM	1	0	22.23	22.24	22.23	22.63
		1	50	22.13	22.16	21.17	22.63
		1	99	22.23	22.20	22.27	22.63

		50	0	20.80	20.75	20.81	21.63	
		50	25	20.73	20.68	20.85	21.63	
		50	50	20.79	20.76	20.81	21.63	
		100	0	20.70	20.66	20.82	21.63	
	64QAM		1	0	20.67	20.85	20.77	21.63
			1	50	20.79	20.69	20.70	21.63
			1	99	20.86	20.88	20.97	21.63
			50	0	20.23	20.19	20.13	20.63
			50	25	20.14	20.20	20.26	20.63
			50	50	20.23	20.17	20.13	20.63
			100	0	20.23	20.27	20.32	20.63

LTE TDD Band 38 (Hotspot on+Receiver on) (Hotspot on+Receiver off+SAR sensor on Level D3) (Hotspot on+Receiver off+SAR sensor on Level D7) (sensor off+hotspot on)				Conducted Power(dBm)			Tune-up Limit	
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)				
				37775/2572.5	38000/2595	38225/2617.5		
5MHz	QPSK	1	0	20.78	20.82	20.65	21.63	
		1	13	20.62	20.74	20.86	21.63	
		1	24	20.74	20.82	20.84	21.63	
		12	0	20.56	20.57	20.64	21.63	
		12	6	20.61	20.66	20.72	21.63	
		12	13	20.86	20.74	20.75	21.63	
		25	0	20.50	20.63	20.78	21.63	
	16QAM	1	0	21.00	21.01	21.02	21.63	
		1	13	20.72	20.78	20.95	21.63	
		1	24	20.84	21.00	21.05	21.63	
		12	0	20.54	20.67	20.47	21.63	
		12	6	20.61	20.68	20.58	21.63	
		12	13	20.51	20.76	20.70	21.63	
		25	0	20.52	20.57	20.60	21.63	
	64QAM	1	0	20.86	20.61	20.87	21.63	
		1	13	21.02	20.56	20.93	21.63	
		1	24	20.86	20.67	20.91	21.63	
		12	0	20.52	20.60	20.59	20.63	
		12	6	20.61	20.58	20.58	20.63	
		12	13	20.51	20.60	20.57	20.63	
		25	0	20.52	20.56	20.60	20.63	
	Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
	10MHz	QPSK	1	0	37800/2575	38000/2595	38200/2615	21.63

		1	25	20.65	20.79	20.90	21.63	
		1	49	20.76	20.86	20.87	21.63	
		25	0	20.59	20.62	20.68	21.63	
		25	13	20.64	20.71	20.76	21.63	
		25	25	20.88	20.78	20.80	21.63	
		50	0	20.58	20.65	20.82	21.63	
	16QAM	1	0	21.02	21.04	21.04	21.63	
		1	25	20.75	20.82	20.98	21.63	
		1	49	20.87	21.02	21.08	21.63	
		25	0	20.57	20.72	20.51	21.63	
		25	13	20.63	20.72	20.61	21.63	
		25	25	20.54	20.81	20.74	21.63	
	64QAM	50	0	20.55	20.62	20.64	21.63	
		1	0	20.88	20.64	20.89	21.63	
		1	25	21.05	20.60	20.96	21.63	
		1	49	20.89	20.69	20.94	21.63	
		25	0	20.61	20.60	20.57	20.63	
		25	13	20.60	20.59	20.61	20.63	
	Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
					37825/2577.5	38000/2595	38175/2612.5	
	15MHz	QPSK	1	0	20.79	20.79	20.66	21.63
1			38	20.63	20.78	20.87	21.63	
1			74	20.73	20.81	20.83	21.63	
36			0	20.57	20.58	20.65	21.63	
36			18	20.61	20.66	20.72	21.63	
36			39	20.85	20.75	20.76	21.63	
75			0	20.56	20.61	20.77	21.63	
16QAM		1	0	20.97	21.02	21.02	21.63	
		1	38	20.73	20.79	20.96	21.63	
		1	74	20.84	20.98	21.05	21.63	
		36	0	20.54	20.70	20.48	21.63	
		36	18	20.60	20.67	20.57	21.63	
		36	39	20.52	20.77	20.71	21.63	
		75	0	20.52	20.57	20.60	21.63	
64QAM		1	0	20.83	20.62	20.87	21.63	
		1	38	21.03	20.57	20.94	21.63	
		1	74	20.86	20.65	20.91	21.63	
		36	0	20.57	20.60	20.54	20.63	
		36	18	20.61	20.57	20.56	20.63	
		36	39	20.52	20.56	20.58	20.63	
		75	0	20.52	20.60	20.60	20.63	

Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				37850/2580	38000/2595	38150/2610	
20MHz	QPSK	1	0	20.76	20.75	20.63	21.63
		1	50	20.62	20.74	20.85	21.63
		1	99	20.71	20.80	20.80	21.63
		50	0	20.54	20.53	20.61	21.63
		50	25	20.59	20.62	20.69	21.63
		50	50	20.82	20.70	20.72	21.63
		100	0	20.53	20.56	20.73	21.63
	16QAM	1	0	20.95	20.98	20.97	21.63
		1	50	20.69	20.77	20.92	21.63
		1	99	20.82	20.95	21.03	21.63
		50	0	20.51	20.66	20.45	21.63
		50	25	20.57	20.65	20.54	21.63
		50	50	20.49	20.72	20.67	21.63
		100	0	20.50	20.53	20.57	21.63
	64QAM	1	0	20.81	20.58	20.82	21.63
		1	50	20.99	20.55	20.90	21.63
		1	99	20.84	20.62	20.89	21.63
		50	0	20.52	20.60	20.57	20.63
		50	25	20.58	20.55	20.54	20.63
		50	50	20.49	20.57	20.55	20.63
		100	0	20.50	20.56	20.57	20.63

LTE TDD Band 38 (Receiver off+SAR sensor on Level D1&D2)				Conducted Power(dBm)			Tune-up Limit
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			
				37775/2572.5	38000/2595	38225/2617.5	
5MHz	QPSK	1	0	22.25	22.27	22.29	22.63
		1	13	22.32	22.21	22.37	22.63
		1	24	22.54	21.71	21.73	22.63
		12	0	21.13	21.11	21.24	22.63
		12	6	21.12	21.15	21.17	22.63
		12	13	21.39	21.24	21.25	22.63
		25	0	21.13	21.21	21.22	22.63
	16QAM	1	0	21.34	21.68	21.64	22.63
		1	13	21.28	21.54	21.40	22.63
		1	24	21.63	21.65	21.53	22.63
		12	0	20.10	20.06	19.91	21.63
		12	6	19.99	20.00	20.13	21.63
		12	13	20.01	20.11	20.19	21.63
		25	0	20.05	20.09	20.18	21.63
	64QAM	1	0	20.95	20.91	20.94	21.63

		1	13	20.82	20.79	21.08	21.63
		1	24	21.14	21.01	21.10	21.63
		12	0	20.16	19.92	19.96	20.63
		12	6	20.04	19.98	20.18	20.63
		12	13	20.38	20.10	20.24	20.63
		25	0	20.08	20.07	20.15	20.63
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				37800/2575	38000/2595	38200/2615	
10MHz	QPSK	1	0	22.26	22.26	22.31	22.63
		1	25	22.33	22.25	22.39	22.63
		1	49	22.55	21.73	21.75	22.63
		25	0	21.14	21.15	21.26	22.63
		25	13	21.14	21.18	21.20	22.63
		25	25	21.39	21.24	21.29	22.63
		50	0	21.13	21.22	21.23	22.63
	16QAM	1	0	21.33	21.66	21.64	22.63
		1	25	21.30	21.57	21.38	22.63
		1	49	21.64	21.63	21.55	22.63
		25	0	20.08	20.10	19.92	21.63
		25	13	19.98	19.99	20.14	21.63
		25	25	20.03	20.15	20.18	21.63
		50	0	20.04	20.11	20.18	21.63
	64QAM	1	0	20.95	20.90	20.95	21.63
		1	25	20.84	20.81	21.08	21.63
		1	49	21.14	20.98	21.11	21.63
		25	0	20.18	19.96	19.95	20.63
		25	13	20.02	19.99	20.17	20.63
		25	25	20.39	20.11	20.27	20.63
		50	0	20.10	20.10	20.16	20.63
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				37825/2577.5	38000/2595	38175/2612.5	
15MHz	QPSK	1	0	22.26	22.24	22.30	22.63
		1	38	22.33	22.25	22.38	22.63
		1	74	22.53	21.70	21.72	22.63
		36	0	21.14	21.12	21.25	22.63
		36	18	21.12	21.15	21.17	22.63
		36	39	21.38	21.25	21.26	22.63
		75	0	21.16	21.19	21.21	22.63
	16QAM	1	0	21.31	21.69	21.64	22.63
		1	38	21.29	21.55	21.41	22.63
		1	74	21.64	21.63	21.53	22.63
		36	0	20.10	20.09	19.92	21.63
36		18	19.98	19.99	20.12	21.63	

Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				37850/2580	38000/2595	38150/2610	
	64QAM	36	39	20.02	20.12	20.20	21.63
		75	0	20.05	20.09	20.18	21.63
		1	0	20.92	20.92	20.94	21.63
		1	38	20.83	20.80	21.09	21.63
		1	74	21.14	20.99	21.10	21.63
		36	0	20.16	19.95	19.97	20.63
		36	18	20.03	19.97	20.17	20.63
		36	39	20.39	20.11	20.25	20.63
		75	0	20.08	20.07	20.15	20.63
		20MHz	QPSK	1	0	22.23	22.20
1	50			22.32	22.21	22.36	22.63
1	99			22.51	21.69	21.69	22.63
50	0			21.11	21.07	21.21	22.63
50	25			21.10	21.11	21.14	22.63
50	50			21.35	21.20	21.22	22.63
100	0			21.13	21.14	21.17	22.63
16QAM	1		0	21.29	21.65	21.59	22.63
	1		50	21.25	21.53	21.37	22.63
	1		99	21.61	21.60	21.51	22.63
	50		0	20.07	20.05	19.89	21.63
	50		25	19.95	19.97	20.09	21.63
	50		50	19.99	20.07	20.16	21.63
	100		0	20.03	20.05	20.15	21.63
64QAM	1		0	20.90	20.88	20.89	21.63
	1		50	20.79	20.78	21.05	21.63
	1		99	21.12	20.96	21.08	21.63
	50		0	20.13	19.91	19.94	20.63
	50		25	20.00	19.95	20.14	20.63
	50		50	20.36	20.06	20.21	20.63
	100		0	20.06	20.03	20.12	20.63

LTE TDD Band 38 (Hotspot on+Receiver off+SAR sensor on Level D1&D2)				Conducted Power(dBm)			Tune-up Limit
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			
				37775/2572.5	38000/2595	38225/2617.5	
5MHz	QPSK	1	0	19.97	20.06	20.07	20.63
		1	13	19.90	19.94	19.96	20.63
		1	24	20.13	20.02	20.17	20.63
		12	0	20.02	19.95	19.76	20.63
		12	6	19.88	19.97	19.99	20.63
		12	13	20.05	20.07	19.95	20.63

	16QAM	25	0	19.93	20.03	19.92	20.63
		1	0	20.46	20.36	20.33	20.63
		1	13	20.20	20.33	20.22	20.63
		1	24	20.38	20.45	20.32	20.63
		12	0	19.81	19.82	19.69	20.63
		12	6	19.80	19.75	19.90	20.63
		12	13	19.82	19.29	19.96	20.63
	25	0	19.78	19.68	19.88	20.63	
	64QAM	1	0	19.86	19.77	19.73	20.63
		1	13	19.82	19.85	19.83	20.63
		1	24	19.88	19.95	19.89	20.63
		12	0	19.76	19.66	19.60	20.63
		12	6	19.75	19.72	19.85	20.63
		12	13	19.77	19.82	19.91	20.63
25		0	19.82	19.83	19.92	20.63	
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				37800/2575	38000/2595	38200/2615	
10MHz	QPSK	1	0	19.98	20.05	20.09	20.63
		1	25	19.91	19.98	19.98	20.63
		1	49	20.14	20.04	20.19	20.63
		25	0	20.03	19.99	19.78	20.63
		25	13	19.90	20.00	20.02	20.63
		25	25	20.05	20.07	19.99	20.63
		50	0	19.93	20.04	19.93	20.63
	16QAM	1	0	20.45	20.34	20.33	20.63
		1	25	20.22	20.36	20.20	20.63
		1	49	20.39	20.43	20.34	20.63
		25	0	19.79	19.86	19.70	20.63
		25	13	19.79	19.74	19.91	20.63
		25	25	19.84	19.33	19.95	20.63
		50	0	19.77	19.70	19.88	20.63
	64QAM	1	0	19.86	19.76	19.74	20.63
		1	25	19.84	19.87	19.83	20.63
		1	49	19.88	19.92	19.90	20.63
		25	0	19.78	19.70	19.59	20.63
		25	13	19.73	19.73	19.84	20.63
		25	25	19.78	19.83	19.94	20.63
		50	0	19.84	19.86	19.93	20.63
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				37825/2577.5	38000/2595	38175/2612.5	
15MHz	QPSK	1	0	19.98	20.03	20.08	20.63
		1	38	19.91	19.98	19.97	20.63
		1	74	20.12	20.01	20.16	20.63

		36	0	20.03	19.96	19.77	20.63	
		36	18	19.88	19.97	19.99	20.63	
		36	39	20.04	20.08	19.96	20.63	
		75	0	19.96	20.01	19.91	20.63	
	16QAM	1	0	20.43	20.37	20.33	20.63	
		1	38	20.21	20.34	20.23	20.63	
		1	74	20.38	20.43	20.32	20.63	
		36	0	19.81	19.85	19.70	20.63	
		36	18	19.79	19.74	19.89	20.63	
		36	39	19.83	19.30	19.97	20.63	
		75	0	19.78	19.68	19.88	20.63	
		64QAM	1	0	19.83	19.78	19.73	20.63
	1		38	19.83	19.86	19.84	20.63	
	1		74	19.88	19.93	19.89	20.63	
	36		0	19.76	19.69	19.61	20.63	
	36		18	19.74	19.71	19.84	20.63	
	36		39	19.78	19.83	19.92	20.63	
	75		0	19.82	19.83	19.92	20.63	
	Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
					37850/2580	38000/2595	38150/2610	
	20MHz	QPSK	1	0	19.95	19.99	20.05	20.63
1			50	19.90	19.94	19.95	20.63	
1			99	20.10	20.00	20.13	20.63	
50			0	20.00	19.91	19.73	20.63	
50			25	19.86	19.93	19.96	20.63	
50			50	20.01	20.03	19.92	20.63	
100			0	19.93	19.96	19.87	20.63	
16QAM		1	0	20.41	20.33	20.28	20.63	
		1	50	20.17	20.32	20.19	20.63	
		1	99	20.36	20.40	20.30	20.63	
		50	0	19.78	19.81	19.67	20.63	
		50	25	19.76	19.72	19.86	20.63	
		50	50	19.80	19.25	19.93	20.63	
		100	0	19.76	19.64	19.85	20.63	
64QAM		1	0	19.81	19.74	19.68	20.63	
		1	50	19.79	19.84	19.80	20.63	
		1	99	19.86	19.90	19.87	20.63	
		50	0	19.73	19.65	19.58	20.63	
		50	25	19.71	19.69	19.81	20.63	
		50	50	19.75	19.78	19.88	20.63	
		100	0	19.80	19.79	19.89	20.63	

LTE TDD Band 41 (Receiver on) (Receiver off+SAR sensor on Level D1&D2) (Receiver off+SAR sensor on Level D3) (Receiver off+SAR sensor on Level D7) (sensor off+hotspot off)				Conducted Power(dBm)			Tune-up Limit
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			
				40148/2545.8	40620/2593	41093/2640.3	
5MHz	QPSK	1	0	23.02	23.24	23.09	23.63
		1	13	23.16	23.07	23.14	23.63
		1	24	23.04	23.16	23.10	23.63
		12	0	22.01	21.88	21.97	22.63
		12	6	21.96	21.92	22.06	22.63
		12	13	22.10	21.98	22.07	22.63
		25	0	21.98	21.98	22.05	22.63
	16QAM	1	0	22.33	22.22	22.46	22.63
		1	13	22.31	22.25	22.41	22.63
		1	24	22.39	22.36	22.41	22.63
		12	0	21.05	20.89	20.99	21.63
		12	6	21.01	20.82	20.96	21.63
		12	13	20.97	20.89	20.98	21.63
		25	0	20.96	20.81	20.99	21.63
	64QAM	1	0	20.79	20.98	20.89	21.63
		1	13	20.88	20.79	20.79	21.63
		1	24	20.97	21.00	21.04	21.63
		12	0	20.32	20.26	20.25	20.63
		12	6	20.24	20.30	20.37	20.63
		12	13	20.30	20.30	20.23	20.63
		25	0	20.30	20.40	20.42	20.63
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				40160/2547	40620/2593	41080/2639	
10MHz	QPSK	1	0	23.05	23.26	23.13	23.63
		1	25	23.18	23.11	23.17	23.63
		1	49	23.07	23.21	23.14	23.63
		25	0	22.04	21.93	22.01	22.63
		25	13	21.98	21.96	22.11	22.63
		25	25	22.12	22.00	22.11	22.63
		50	0	21.98	21.99	22.07	22.63
	16QAM	1	0	22.36	22.26	22.49	22.63
		1	25	22.34	22.27	22.44	22.63
		1	49	22.42	22.38	22.45	22.63
		25	0	21.07	20.93	21.02	21.63
		25	13	21.04	20.87	21.00	21.63

		25	25	21.00	20.94	21.02	21.63
		50	0	20.98	20.85	21.04	21.63
	64QAM	1	0	20.82	20.98	20.92	21.63
		1	25	20.91	20.77	20.82	21.63
		1	49	20.96	21.02	21.08	21.63
		25	0	20.34	20.30	20.24	20.63
		25	13	20.27	20.35	20.41	20.63
		25	25	20.33	20.35	20.27	20.63
		50	0	20.32	20.44	20.47	20.63
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				40173/2548.3	40620/2593	41068/2637.8	
15MHz	QPSK	1	0	23.03	23.21	23.10	23.63
		1	38	23.17	23.11	23.15	23.63
		1	74	23.03	23.15	23.09	23.63
		36	0	22.02	21.89	21.98	22.63
		36	18	21.96	21.92	22.06	22.63
		36	39	22.09	21.99	22.08	22.63
		75	0	22.00	21.96	22.04	22.63
	16QAM	1	0	22.30	22.23	22.46	22.63
		1	38	22.32	22.26	22.42	22.63
		1	74	22.39	22.34	22.41	22.63
		36	0	21.05	20.92	21.00	21.63
		36	18	21.00	20.81	20.95	21.63
		36	39	20.98	20.90	20.99	21.63
		75	0	20.96	20.81	20.99	21.63
	64QAM	1	0	20.76	20.95	20.89	21.63
		1	38	20.89	20.76	20.80	21.63
		1	74	20.97	21.01	21.08	21.63
		36	0	20.34	20.33	20.26	20.63
		36	18	20.24	20.31	20.39	20.63
		36	39	20.31	20.31	20.24	20.63
		75	0	20.30	20.40	20.42	20.63
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				40185/2549.5	40620/2593	41055/2636.5	
20MHz	QPSK	1	0	23.00	23.17	23.07	23.63
		1	50	23.16	23.07	23.13	23.63
		1	99	23.01	23.14	23.06	23.63
		50	0	21.99	21.84	21.94	22.63
		50	25	21.94	21.88	22.03	22.63
		50	50	22.06	21.94	22.04	22.63
		100	0	21.97	21.91	22.00	22.63
	16QAM	1	0	22.43	22.19	22.41	22.63
		1	50	22.28	22.24	22.38	22.63

		1	99	22.37	22.31	22.39	22.63
		50	0	21.02	20.88	20.97	21.63
		50	25	20.97	20.79	20.92	21.63
		50	50	20.95	20.85	20.95	21.63
		100	0	20.94	20.77	20.96	21.63
	64QAM	1	0	20.74	20.91	20.84	21.63
		1	50	20.85	20.74	20.76	21.63
		1	99	20.91	20.95	21.02	21.63
		50	0	20.29	20.25	20.19	20.63
		50	25	20.20	20.27	20.33	20.63
		50	50	20.28	20.26	20.20	20.63
		100	0	20.28	20.36	20.39	20.63

LTE TDD Band 41 (Hotspot on+Receiver on) (Hotspot on+Receiver off+SAR sensor on Level D1&D2) (Hotspot on+Receiver off+SAR sensor on Level D3) (Hotspot on+Receiver off+SAR sensor on Level D7) (sensor off+hotspot on)				Conducted Power(dBm)			Tune-up Limit
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			
				40148/2545.8	40620/2593	41093/2640.3	
5MHz	QPSK	1	0	21.25	21.25	21.29	22.13
		1	13	21.14	21.21	21.21	22.13
		1	24	21.25	21.26	21.32	22.13
		12	0	21.28	21.27	21.25	22.13
		12	6	21.15	21.24	21.15	22.13
		12	13	21.31	21.29	21.26	22.13
		25	0	21.16	21.31	21.27	22.13
	16QAM	1	0	21.38	21.47	21.48	22.13
		1	13	21.38	21.51	21.49	22.13
		1	24	21.40	21.44	21.47	22.13
		12	0	20.61	20.63	20.65	21.63
		12	6	20.60	20.62	20.58	21.63
		12	13	20.72	20.79	20.68	21.63
		25	0	20.64	20.68	20.69	21.63
	64QAM	1	0	21.42	21.33	21.45	21.63
		1	13	21.38	21.36	21.35	21.63
		1	24	21.34	21.41	21.35	21.63
		12	0	20.53	20.53	20.52	20.63
		12	6	20.51	20.52	20.59	20.63
		12	13	20.51	20.55	20.54	20.63
		25	0	20.54	20.54	20.52	20.63

Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				40160/2547	40620/2593	41080/2639	
10MHz	QPSK	1	0	21.27	21.26	21.32	22.13
		1	25	21.17	21.26	21.25	22.13
		1	49	21.27	21.30	21.35	22.13
		25	0	21.31	21.32	21.29	22.13
		25	13	21.18	21.29	21.19	22.13
		25	25	21.33	21.33	21.31	22.13
		50	0	21.24	21.33	21.31	22.13
	16QAM	1	0	21.40	21.50	21.50	22.13
		1	25	21.41	21.55	21.52	22.13
		1	49	21.43	21.46	21.50	22.13
		25	0	20.64	20.68	20.69	21.63
		25	13	20.62	20.66	20.61	21.63
		25	25	20.75	20.84	20.72	21.63
		50	0	20.67	20.73	20.73	21.63
	64QAM	1	0	21.44	21.36	21.47	21.63
		1	25	21.41	21.40	21.38	21.63
		1	49	21.37	21.43	21.38	21.63
		25	0	20.56	20.58	20.56	20.63
		25	13	20.53	20.56	20.52	20.63
		25	25	20.54	20.60	20.58	20.63
		50	0	20.57	20.59	20.56	20.63
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				40173/2548.3	40620/2593	41068/2637.8	
15MHz	QPSK	1	0	21.26	21.22	21.30	22.13
		1	38	21.15	21.25	21.22	22.13
		1	74	21.24	21.25	21.31	22.13
		36	0	21.29	21.28	21.26	22.13
		36	18	21.15	21.24	21.15	22.13
		36	39	21.30	21.30	21.27	22.13
		75	0	21.22	21.29	21.26	22.13
	16QAM	1	0	21.35	21.48	21.48	22.13
		1	38	21.39	21.52	21.50	22.13
		1	74	21.40	21.42	21.47	22.13
		36	0	20.61	20.66	20.66	21.63
		36	18	20.59	20.61	20.57	21.63
		36	39	20.73	20.80	20.69	21.63
		75	0	20.64	20.68	20.69	21.63
	64QAM	1	0	21.39	21.34	21.45	21.63
		1	38	21.39	21.37	21.36	21.63
		1	74	21.34	21.39	21.35	21.63
		36	0	20.53	20.56	20.53	20.63

Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				40185/2549.5	40620/2593	41055/2636.5	
20MHz	QPSK	36	18	20.50	20.51	20.58	20.63
		36	39	20.52	20.56	20.55	20.63
		75	0	20.54	20.54	20.52	20.63
		1	0	21.23	21.18	21.27	22.13
		1	50	21.14	21.21	21.20	22.13
		1	99	21.22	21.24	21.28	22.13
		50	0	21.26	21.23	21.22	22.13
	16QAM	50	25	21.13	21.20	21.12	22.13
		50	50	21.27	21.25	21.23	22.13
		100	0	21.19	21.24	21.22	22.13
		1	0	21.33	21.44	21.43	22.13
		1	50	21.35	21.50	21.46	22.13
		1	99	21.38	21.39	21.45	22.13
		50	0	20.58	20.62	20.63	21.63
	64QAM	50	25	20.56	20.59	20.54	21.63
		50	50	20.70	20.75	20.65	21.63
		100	0	20.62	20.64	20.66	21.63
		1	0	21.37	21.30	21.40	21.63
		1	50	21.35	21.35	21.32	21.63
		1	99	21.32	21.36	21.33	21.63
		50	0	20.50	20.52	20.50	20.63
	50	25	20.57	20.49	20.55	20.63	
	50	50	20.59	20.51	20.51	20.63	
	100	0	20.52	20.50	20.49	20.63	

LTE FDD Band 66 (Receiver on) (Receiver off+SAR sensor on Level D1&D2) (Receiver off+SAR sensor on Level D3) (Receiver off+SAR sensor on Level D7) (sensor off+hotspot off)				Conducted Power(dBm)			Tune-up Limit
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			
				131979/1710.7	132322/1745	132665/1779.3	
1.4MHz	QPSK	1	0	22.15	22.13	22.10	23.00
		1	2	22.18	22.14	22.02	23.00
		1	5	22.20	22.24	22.18	23.00
		3	0	22.00	22.12	22.06	23.00
		3	2	21.99	22.07	22.05	23.00
		3	3	22.04	22.05	21.96	23.00
		6	0	21.00	21.25	21.08	22.00
	16QAM	1	0	21.16	20.94	21.06	22.00

		1	2	21.14	21.01	21.10	22.00
		1	5	21.19	21.05	21.03	22.00
		3	0	20.83	21.05	20.76	22.00
		3	2	20.98	21.06	20.82	22.00
		3	3	21.00	21.05	20.82	22.00
		6	0	19.99	20.14	19.97	21.00
	64QAM	1	0	20.23	19.93	19.96	21.00
		1	2	19.91	19.90	19.73	21.00
		1	5	20.10	20.03	19.88	21.00
		3	0	20.11	20.31	20.33	21.00
		3	2	20.06	20.15	20.18	21.00
		3	3	20.33	20.14	20.19	21.00
	6	0	19.30	19.27	19.34	20.00	
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				1319871711.5	132322/1745	132657/1778.5	
3MHz	QPSK	1	0	22.17	22.17	22.13	23.00
		1	7	22.16	22.17	22.06	23.00
		1	14	22.23	22.29	22.22	23.00
		8	0	21.10	21.24	21.19	22.00
		8	4	21.11	21.17	21.17	22.00
		8	7	21.14	21.16	21.06	22.00
		15	0	21.00	21.29	21.11	22.00
	16QAM	1	0	21.19	20.96	21.09	22.00
		1	7	21.17	21.01	21.14	22.00
		1	14	21.21	21.09	21.06	22.00
		8	0	19.94	20.18	19.88	21.00
		8	4	20.09	20.19	19.94	21.00
		8	7	20.10	20.17	19.95	21.00
		15	0	20.02	20.18	20.00	21.00
	64QAM	1	0	20.26	19.95	19.99	21.00
		1	7	19.94	19.90	19.75	21.00
		1	14	20.12	20.02	19.91	21.00
		8	0	19.22	19.44	19.45	20.00
		8	4	19.17	19.28	19.30	20.00
		8	7	19.43	19.26	19.32	20.00
		15	0	19.33	19.31	19.37	20.00
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				131997/1712.5	132322/1745	132647/1777.5	
5MHz	QPSK	1	0	22.14	22.15	22.09	23.00
		1	13	22.14	22.13	22.03	23.00
		1	24	22.20	22.24	22.18	23.00
		12	0	21.07	21.19	21.15	22.00
		12	6	21.09	21.13	21.12	22.00

Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit		
				132022/1715	132322/1745	132622/1775			
	16QAM	12	13	21.12	21.14	21.02	22.00		
		25	0	21.00	21.28	21.09	22.00		
		1	0	21.16	20.92	21.06	22.00		
		1	13	21.14	20.99	21.11	22.00		
		1	24	21.18	21.07	21.02	22.00		
		12	0	19.92	20.14	19.85	21.00		
		12	6	20.06	20.14	19.90	21.00		
		12	13	20.07	20.12	19.91	21.00		
		25	0	20.00	20.14	19.95	21.00		
	64QAM	1	0	20.23	19.95	19.96	21.00		
		1	13	19.91	19.92	19.72	21.00		
		1	24	20.13	20.00	19.87	21.00		
		12	0	19.20	19.40	19.46	20.00		
		12	6	19.14	19.23	19.26	20.00		
		12	13	19.40	19.21	19.28	20.00		
		25	0	19.31	19.27	19.32	20.00		
		10MHz	QPSK	1	0	22.16	22.16	22.12	23.00
				1	25	22.17	22.18	22.07	23.00
1	49			22.22	22.28	22.21	23.00		
25	0			21.10	21.24	21.19	22.00		
25	13			21.12	21.18	21.16	22.00		
25	25			21.14	21.18	21.07	22.00		
50	0			21.04	21.30	21.13	22.00		
16QAM	1		0	21.18	20.95	21.08	22.00		
	1		25	21.17	21.03	21.14	22.00		
	1		49	21.21	21.09	21.05	22.00		
	25		0	19.95	20.19	19.89	21.00		
	25		13	20.08	20.18	19.93	21.00		
	25		25	20.10	20.17	19.95	21.00		
	50		0	20.03	20.19	19.99	21.00		
64QAM	1		0	20.25	19.94	19.98	21.00		
	1		25	19.94	19.92	19.75	21.00		
	1		49	20.12	20.02	19.90	21.00		
	25		0	19.23	19.45	19.46	20.00		
	25	13	19.16	19.27	19.29	20.00			
	25	25	19.43	19.26	19.32	20.00			
	50	0	19.34	19.32	19.36	20.00			
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit		
				132047/1717.5	132322/1745	132597/1772.5			
15MHz	QPSK	1	0	22.15	22.12	22.10	23.00		
		1	38	22.15	22.17	22.04	23.00		

		1	74	22.19	22.23	22.17	23.00	
		36	0	21.08	21.20	21.16	22.00	
		36	18	21.09	21.13	21.12	22.00	
		36	39	21.11	21.15	21.03	22.00	
		75	0	21.02	21.26	21.08	22.00	
	16QAM	1	0	21.13	20.93	21.06	22.00	
		1	38	21.15	21.00	21.12	22.00	
		1	74	21.18	21.05	21.02	22.00	
		36	0	19.92	20.17	19.86	21.00	
		36	18	20.05	20.13	19.89	21.00	
		36	39	20.08	20.13	19.92	21.00	
		75	0	20.00	20.14	19.95	21.00	
	64QAM	1	0	20.20	19.92	19.96	21.00	
		1	38	19.92	19.89	19.73	21.00	
		1	74	20.13	20.01	19.91	21.00	
		36	0	19.22	19.47	19.47	20.00	
		36	18	19.14	19.24	19.28	20.00	
		36	39	19.41	19.22	19.29	20.00	
		75	0	19.31	19.27	19.32	20.00	
	Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
					132072/1720	132322/1745	132572/1770	
20MHz	QPSK	1	0	22.12	22.08	22.07	23.00	
		1	50	22.14	22.13	22.02	23.00	
		1	99	22.17	22.22	22.14	23.00	
		50	0	21.05	21.15	21.12	22.00	
		50	25	21.07	21.09	21.09	22.00	
		50	50	21.08	21.10	20.99	22.00	
		100	0	20.99	21.21	21.04	22.00	
	16QAM	1	0	21.05	20.89	21.01	22.00	
		1	50	21.11	20.98	21.08	22.00	
		1	99	21.16	21.02	21.00	22.00	
		50	0	19.89	20.13	19.83	21.00	
		50	25	20.02	20.11	19.86	21.00	
		50	50	20.05	20.08	19.88	21.00	
		100	0	19.98	20.10	19.92	21.00	
	64QAM	1	0	20.18	19.88	19.91	21.00	
		1	50	19.88	19.87	19.69	21.00	
		1	99	20.07	19.95	19.85	21.00	
		50	0	19.17	19.39	19.40	20.00	
		50	25	19.10	19.20	19.22	20.00	
		50	50	19.38	19.17	19.25	20.00	
		100	0	19.29	19.23	19.29	20.00	

LTE FDD Band 66 (Hotspot on+Receiver on) (Hotspot on+Receiver off+SAR sensor on Level D1&D2) (Hotspot on+Receiver off+SAR sensor on Level D3) (Hotspot on+Receiver off+SAR sensor on Level D7) (sensor off+hotspot on)				Conducted Power(dBm)			Tune-up Limit	
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)				
				131979/1710.7	132322/1745	132665/1779.3		
1.4MHz	QPSK	1	0	19.60	19.59	19.76	20.50	
		1	2	19.73	19.64	19.65	20.50	
		1	5	19.69	19.60	19.68	20.50	
		3	0	20.44	20.45	20.38	20.50	
		3	2	20.44	20.42	20.44	20.50	
		3	3	20.49	20.38	20.37	20.50	
	16QAM	6	0	19.59	19.70	19.69	20.50	
		1	0	19.93	19.64	19.75	20.50	
		1	2	19.91	19.67	19.70	20.50	
		1	5	19.95	19.63	19.66	20.50	
		3	0	20.35	20.44	20.29	20.50	
		3	2	20.41	20.35	20.39	20.50	
	64QAM	3	3	20.39	20.40	20.45	20.50	
		6	0	19.43	19.60	19.53	20.50	
		1	0	20.07	19.76	19.89	20.50	
		1	2	20.03	19.77	19.84	20.50	
		1	5	20.05	19.82	19.76	20.50	
		3	0	20.47	20.46	20.41	20.50	
	3MHz	QPSK	3	2	20.43	20.39	20.33	20.50
			3	3	20.39	20.38	20.39	20.50
			6	0	19.53	19.78	19.67	20.00
1			0	19.61	19.62	19.78	20.50	
1			7	19.72	19.68	19.70	20.50	
1			14	19.71	19.64	19.71	20.50	
16QAM		8	0	19.64	19.77	19.68	20.50	
		8	4	19.67	19.73	19.65	20.50	
		8	7	19.69	19.71	19.68	20.50	
		15	0	19.63	19.75	19.74	20.50	
		1	0	19.95	19.65	19.77	20.50	
		1	7	19.94	19.69	19.74	20.50	
3MHz	16QAM	1	14	19.97	19.67	19.68	20.50	
		8	0	19.47	19.68	19.42	20.50	

Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit	
				131997/1712.5	132322/1745	132647/1777.5		
	64QAM	8	4	19.51	19.67	19.50	20.50	
		8	7	19.49	19.62	19.58	20.50	
		15	0	19.47	19.65	19.55	20.50	
		1	0	20.09	19.77	19.91	20.50	
		1	7	20.06	19.79	19.86	20.50	
		1	14	20.07	19.81	19.78	20.50	
		8	0	19.59	19.80	19.54	20.50	
		8	4	19.63	19.81	19.64	20.50	
		8	7	19.59	19.80	19.72	20.50	
		15	0	19.57	19.83	19.69	20.50	
5MHz	QPSK	1	0	19.59	19.61	19.75	20.50	
		1	13	19.69	19.63	19.66	20.50	
		1	24	19.69	19.60	19.68	20.50	
		12	0	19.61	19.72	19.64	20.50	
		12	6	19.64	19.68	19.61	20.50	
		12	13	19.67	19.67	19.63	20.50	
		25	0	19.59	19.73	19.70	20.50	
	16QAM	1	0	19.93	19.62	19.75	20.50	
		1	13	19.91	19.65	19.71	20.50	
		1	24	19.94	19.65	19.65	20.50	
		12	0	19.44	19.63	19.38	20.50	
		12	6	19.49	19.63	19.47	20.50	
		12	13	19.46	19.57	19.54	20.50	
		25	0	19.44	19.60	19.51	20.50	
	64QAM	1	0	20.07	19.78	19.89	20.50	
		1	13	20.03	19.79	19.83	20.50	
		1	24	20.08	19.79	19.75	20.50	
		12	0	19.56	19.75	19.54	20.50	
		12	6	19.61	19.77	19.61	20.50	
		12	13	19.56	19.75	19.68	20.50	
		25	0	19.54	19.78	19.65	20.50	
	Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
					132022/1715	132322/1745	132622/1775	
	10MHz	QPSK	1	0	19.62	19.63	19.79	20.50
			1	25	19.71	19.67	19.69	20.50
			1	49	19.72	19.65	19.72	20.50
			25	0	19.64	19.77	19.68	20.50
			25	13	19.66	19.72	19.66	20.50
25			25	19.69	19.69	19.67	20.50	
50			0	19.59	19.74	19.72	20.50	
16QAM		1	0	19.96	19.66	19.78	20.50	

		1	25	19.94	19.67	19.74	20.50
		1	49	19.97	19.67	19.69	20.50
		25	0	19.46	19.67	19.41	20.50
		25	13	19.52	19.68	19.51	20.50
		25	25	19.49	19.62	19.58	20.50
		50	0	19.46	19.64	19.56	20.50
	64QAM	1	0	20.10	19.78	19.92	20.50
		1	25	20.06	19.77	19.86	20.50
		1	49	20.07	19.81	19.79	20.50
		25	0	19.58	19.79	19.53	20.50
		25	13	19.64	19.82	19.65	20.50
		25	25	19.59	19.80	19.72	20.50
		50	0	19.56	19.82	19.70	20.50
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				132047/1717.5	132322/1745	132597/1772.5	
15MHz	QPSK	1	0	19.60	19.58	19.76	20.50
		1	38	19.70	19.67	19.67	20.50
		1	74	19.68	19.59	19.67	20.50
		36	0	19.62	19.73	19.65	20.50
		36	18	19.64	19.68	19.61	20.50
		36	39	19.66	19.68	19.64	20.50
		75	0	19.61	19.71	19.69	20.50
	16QAM	1	0	19.90	19.63	19.75	20.50
		1	38	19.92	19.66	19.72	20.50
		1	74	19.94	19.63	19.65	20.50
		36	0	19.44	19.66	19.39	20.50
		36	18	19.48	19.62	19.46	20.50
		36	39	19.47	19.58	19.55	20.50
		75	0	19.44	19.60	19.51	20.50
	64QAM	1	0	20.04	19.75	19.89	20.50
		1	38	20.04	19.76	19.84	20.50
		1	74	20.08	19.80	19.79	20.50
		36	0	19.58	19.82	19.55	20.50
		36	18	19.61	19.78	19.63	20.50
		36	39	19.57	19.76	19.69	20.50
		75	0	19.54	19.78	19.65	20.50
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				132072/1720	132322/1745	132572/1770	
20MHz	QPSK	1	0	19.57	19.54	19.73	20.50
		1	50	19.69	19.63	19.65	20.50
		1	99	19.66	19.58	19.64	20.50
		50	0	19.59	19.68	19.61	20.50
		50	25	19.62	19.64	19.58	20.50

		50	50	19.63	19.63	19.60	20.50
		100	0	19.58	19.66	19.65	20.50
	16QAM	1	0	19.90	19.59	19.70	20.50
		1	50	19.88	19.64	19.68	20.50
		1	99	19.92	19.60	19.63	20.50
		50	0	19.41	19.62	19.36	20.50
		50	25	19.45	19.60	19.43	20.50
		50	50	19.44	19.53	19.51	20.50
		100	0	19.42	19.56	19.48	20.50
	64QAM	1	0	20.02	19.71	19.84	20.50
		1	50	20.00	19.74	19.80	20.50
		1	99	20.02	19.74	19.73	20.50
		50	0	19.53	19.74	19.48	20.50
		50	25	19.57	19.74	19.57	20.50
		50	50	19.54	19.71	19.65	20.50
100		0	19.52	19.74	19.62	20.50	

Second - Antenna

LTE FDD Band 2 (Receiver on)				Conducted Power(dBm)			Tune-up Limit
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			
				18607/1850.7	18900/1880	19193/1909.3	
1.4MHz	QPSK	1	0	16.43	16.74	16.54	17.50
		1	2	16.29	16.33	16.32	17.50
		1	5	16.46	16.62	16.63	17.50
		3	0	16.23	16.52	16.53	17.50
		3	2	16.22	16.30	16.25	17.50
		3	3	16.27	16.36	16.36	17.50
		6	0	16.17	16.38	16.48	17.50
	16QAM	1	0	16.99	16.75	17.01	17.50
		1	2	16.49	16.96	16.79	17.50
		1	5	16.90	16.90	16.91	17.50
		3	0	16.16	16.26	16.24	17.50
		3	2	16.17	16.39	16.35	17.50
		3	3	16.18	16.33	16.20	17.50
		6	0	16.16	16.32	16.42	17.50
	64QAM	1	0	16.90	16.81	16.87	17.50
		1	2	16.82	16.84	16.82	17.50
		1	5	16.58	16.55	16.69	17.50
		3	0	16.87	16.78	16.78	17.50
		3	2	16.85	16.80	16.67	17.50
		3	3	16.51	16.51	16.43	17.50
		6	0	16.80	16.83	16.88	17.50

Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				18615/1851.5	18900/1880	19185/1908.5	
3MHz	QPSK	1	0	16.45	16.78	16.57	17.50
		1	7	16.29	16.35	16.36	17.50
		1	14	16.49	16.67	16.67	17.50
		8	0	16.27	16.59	16.60	17.50
		8	4	16.25	16.38	16.31	17.50
		8	7	16.31	16.41	16.40	17.50
		15	0	16.19	16.42	16.51	17.50
	16QAM	1	0	17.02	16.77	17.04	17.50
		1	7	16.52	16.98	16.83	17.50
		1	14	16.92	16.94	16.94	17.50
		8	0	16.21	16.30	16.27	17.50
		8	4	16.22	16.46	16.41	17.50
		8	7	16.22	16.39	16.27	17.50
		15	0	16.19	16.36	16.45	17.50
	64QAM	1	0	16.93	16.83	16.90	17.50
		1	7	16.85	16.86	16.86	17.50
		1	14	16.60	16.59	16.72	17.50
		8	0	16.92	16.82	16.81	17.50
		8	4	16.90	16.87	16.73	17.50
		8	7	16.55	16.57	16.50	17.50
		15	0	16.82	16.89	16.93	17.50
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
5MHz	QPSK	1	0	16.42	16.76	16.53	17.50
		1	13	16.27	16.31	16.33	17.50
		1	24	16.46	16.62	16.63	17.50
		12	0	16.24	16.54	16.56	17.50
		12	6	16.23	16.34	16.26	17.50
		12	13	16.29	16.39	16.36	17.50
		25	0	16.17	16.41	16.49	17.50
	16QAM	1	0	16.99	16.73	17.01	17.50
		1	13	16.49	16.96	16.80	17.50
		1	24	16.89	16.92	16.90	17.50
		12	0	16.19	16.26	16.24	17.50
		12	6	16.19	16.41	16.37	17.50
		12	13	16.19	16.34	16.23	17.50
		25	0	16.17	16.32	16.40	17.50
	64QAM	1	0	16.90	16.79	16.87	17.50
		1	13	16.82	16.84	16.83	17.50
		1	24	16.57	16.57	16.68	17.50
		12	0	16.90	16.78	16.78	17.50

Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				18650/1855	18900/1880	19150/1905	
10MHz	QPSK	12	6	16.87	16.82	16.69	17.50
		12	13	16.52	16.52	16.46	17.50
		25	0	16.80	16.85	16.88	17.50
		1	0	16.43	16.75	16.55	17.50
		1	25	16.28	16.35	16.35	17.50
		1	49	16.47	16.64	16.65	17.50
		25	0	16.25	16.58	16.58	17.50
	16QAM	25	13	16.25	16.37	16.29	17.50
		25	25	16.29	16.39	16.40	17.50
		50	0	16.17	16.42	16.50	17.50
		1	0	16.98	16.71	17.01	17.50
		1	25	16.51	16.99	16.78	17.50
		1	49	16.90	16.90	16.92	17.50
		25	0	16.17	16.30	16.25	17.50
	64QAM	25	13	16.18	16.40	16.38	17.50
		25	25	16.21	16.38	16.22	17.50
		50	0	16.16	16.34	16.40	17.50
		1	0	16.90	16.78	16.88	17.50
		1	25	16.84	16.86	16.83	17.50
		1	49	16.57	16.54	16.69	17.50
		25	0	16.92	16.82	16.77	17.50
15MHz	QPSK	25	13	16.85	16.83	16.68	17.50
		25	25	16.53	16.53	16.49	17.50
		50	0	16.82	16.88	16.89	17.50
		1	0	16.43	16.73	16.54	17.50
		1	38	16.28	16.35	16.34	17.50
		1	74	16.45	16.61	16.62	17.50
		36	0	16.25	16.55	16.57	17.50
	16QAM	36	18	16.23	16.34	16.26	17.50
		36	39	16.28	16.40	16.37	17.50
		75	0	16.20	16.39	16.48	17.50
		1	0	16.96	16.74	17.01	17.50
		1	38	16.50	16.97	16.81	17.50
		1	74	16.89	16.90	16.90	17.50
		36	0	16.19	16.29	16.25	17.50
64QAM	36	18	16.18	16.40	16.36	17.50	
	36	39	16.20	16.35	16.24	17.50	
	75	0	16.17	16.32	16.40	17.50	
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				18675/1857.5	18900/1880	19125/1902.5	
15MHz	QPSK	1	0	16.43	16.73	16.54	17.50
		1	38	16.28	16.35	16.34	17.50
15MHz	16QAM	1	74	16.89	16.90	16.90	17.50
		36	0	16.19	16.29	16.25	17.50
15MHz	64QAM	36	18	16.18	16.40	16.36	17.50
		36	39	16.20	16.35	16.24	17.50
15MHz	64QAM	75	0	16.17	16.32	16.40	17.50
		1	0	16.87	16.80	16.87	17.50

Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				18700/1860	18900/1880	19100/1900	
		1	38	16.83	16.85	16.84	17.50
		1	74	16.57	16.55	16.68	17.50
		36	0	16.90	16.81	16.79	17.50
		36	18	16.86	16.81	16.68	17.50
		36	39	16.53	16.53	16.47	17.50
		75	0	16.80	16.85	16.88	17.50
20MHz	QPSK	1	0	16.40	16.69	16.51	17.50
		1	50	16.27	16.31	16.32	17.50
		1	99	16.43	16.60	16.59	17.50
		50	0	16.22	16.50	16.53	17.50
		50	25	16.21	16.30	16.23	17.50
		50	50	16.25	16.35	16.33	17.50
		100	0	16.17	16.34	16.44	17.50
	16QAM	1	0	16.94	16.70	16.96	17.50
		1	50	16.46	16.95	16.77	17.50
		1	99	16.87	16.87	16.88	17.50
		50	0	16.16	16.25	16.22	17.50
		50	25	16.15	16.38	16.33	17.50
		50	50	16.17	16.30	16.20	17.50
		100	0	16.15	16.28	16.37	17.50
	64QAM	1	0	16.85	16.76	16.82	17.50
		1	50	16.79	16.83	16.80	17.50
		1	99	16.55	16.52	16.66	17.50
		50	0	16.87	16.77	16.76	17.50
		50	25	16.83	16.79	16.65	17.50
		50	50	16.50	16.48	16.43	17.50
		100	0	16.78	16.81	16.85	17.50

LTE FDD Band 2 (Receiver off)				Conducted Power(dBm)			Tune-up Limit
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			
				18607/1850.7	18900/1880	19193/1909.3	
1.4MHz	QPSK	1	0	22.16	22.30	22.10	23.00
		1	2	21.84	22.01	22.29	23.00
		1	5	22.05	22.07	22.25	23.00
		3	0	21.14	21.19	21.14	23.00
		3	2	21.12	21.11	21.19	23.00
		3	3	21.16	21.15	21.18	23.00
		6	0	20.89	21.17	21.00	22.00
	16QAM	1	0	21.43	21.52	21.41	22.00
		1	2	21.37	21.44	21.23	22.00

		1	5	21.49	21.41	21.35	22.00
		3	0	20.02	20.22	20.82	22.00
		3	2	19.83	20.07	20.11	22.00
		3	3	19.89	20.03	19.90	22.00
		6	0	20.00	20.02	19.99	21.00
	64QAM	1	0	19.84	19.93	19.90	21.00
		1	2	19.90	19.93	19.91	21.00
		1	5	19.86	19.88	19.93	21.00
		3	0	19.01	19.22	19.33	21.00
		3	2	19.36	19.16	19.24	21.00
		3	3	19.03	19.20	19.20	21.00
		6	0	19.08	19.36	19.36	20.00
		Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)	
				18615/1851.5	18900/1880	19185/1908.5	
3MHz	QPSK	1	0	22.18	22.34	22.13	23.00
		1	7	21.84	22.03	22.33	23.00
		1	14	22.08	22.12	22.29	23.00
		8	0	21.03	21.26	21.21	22.00
		8	4	20.85	21.19	21.05	22.00
		8	7	21.00	21.20	20.92	22.00
		15	0	20.91	21.21	21.03	22.00
	16QAM	1	0	21.46	21.54	21.44	22.00
		1	7	21.40	21.46	21.27	22.00
		1	14	21.51	21.45	21.38	22.00
		8	0	20.07	20.26	20.85	21.00
		8	4	19.88	20.14	20.17	21.00
		8	7	19.93	20.09	19.97	21.00
		15	0	20.03	20.06	20.02	21.00
	64QAM	1	0	19.87	19.95	19.93	21.00
		1	7	19.93	19.95	19.95	21.00
		1	14	19.88	19.92	19.96	21.00
		8	0	19.06	19.26	19.36	20.00
		8	4	19.41	19.23	19.30	20.00
		8	7	19.07	19.26	19.27	20.00
		15	0	19.10	19.42	19.41	20.00
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				18625/1852.5	18900/1880	19175/1907.5	
5MHz	QPSK	1	0	22.15	22.32	22.09	23.00
		1	13	21.82	21.99	22.30	23.00
		1	24	22.05	22.07	22.25	23.00
		12	0	21.00	21.21	21.17	22.00
		12	6	20.83	21.15	21.00	22.00
		12	13	20.98	21.18	20.88	22.00

	16QAM	25	0	20.89	21.20	21.01	22.00
		1	0	21.43	21.50	21.41	22.00
		1	13	21.37	21.44	21.24	22.00
		1	24	21.48	21.43	21.34	22.00
		12	0	20.05	20.22	20.82	21.00
		12	6	19.85	20.09	20.13	21.00
		12	13	19.90	20.04	19.93	21.00
		25	0	20.01	20.02	19.97	21.00
	64QAM	1	0	19.84	19.91	19.90	21.00
		1	13	19.90	19.93	19.92	21.00
		1	24	19.85	19.90	19.92	21.00
		12	0	19.04	19.22	19.33	20.00
		12	6	19.38	19.18	19.26	20.00
		12	13	19.04	19.21	19.23	20.00
25		0	19.08	19.38	19.36	20.00	
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				18650/1855	18900/1880	19150/1905	
10MHz	QPSK	1	0	22.16	22.31	22.11	23.00
		1	25	21.83	22.03	22.32	23.00
		1	49	22.06	22.09	22.27	23.00
		25	0	21.01	21.25	21.19	22.00
		25	13	20.85	21.18	21.03	22.00
		25	25	20.98	21.18	20.92	22.00
		50	0	20.89	21.21	21.02	22.00
	16QAM	1	0	21.42	21.48	21.41	22.00
		1	25	21.39	21.47	21.22	22.00
		1	49	21.49	21.41	21.36	22.00
		25	0	20.03	20.26	20.83	21.00
		25	13	19.84	20.08	20.14	21.00
		25	25	19.92	20.08	19.92	21.00
		50	0	20.00	20.04	19.97	21.00
	64QAM	1	0	19.84	19.90	19.91	21.00
		1	25	19.92	19.95	19.92	21.00
		1	49	19.85	19.87	19.93	21.00
		25	0	19.06	19.26	19.32	20.00
		25	13	19.36	19.19	19.25	20.00
		25	25	19.05	19.22	19.26	20.00
		50	0	19.10	19.41	19.37	20.00
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				18675/1857.5	18900/1880	19125/1902.5	
15MHz	QPSK	1	0	22.16	22.29	22.10	23.00
		1	38	21.83	22.03	22.31	23.00
		1	74	22.04	22.06	22.24	23.00

		36	0	21.01	21.22	21.18	22.00	
		36	18	20.83	21.15	21.00	22.00	
		36	39	20.97	21.19	20.89	22.00	
		75	0	20.92	21.18	21.00	22.00	
	16QAM	1	0	21.40	21.51	21.41	22.00	
		1	38	21.38	21.45	21.25	22.00	
		1	74	21.48	21.41	21.34	22.00	
		36	0	20.05	20.25	20.83	21.00	
		36	18	19.84	20.08	20.12	21.00	
		36	39	19.91	20.05	19.94	21.00	
		75	0	20.01	20.02	19.97	21.00	
	64QAM	1	0	19.81	19.92	19.90	21.00	
		1	38	19.91	19.94	19.93	21.00	
		1	74	19.85	19.88	19.92	21.00	
		36	0	19.04	19.25	19.34	20.00	
		36	18	19.37	19.17	19.25	20.00	
		36	39	19.05	19.22	19.24	20.00	
		75	0	19.08	19.38	19.36	20.00	
	Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
					18700/1860	18900/1880	19100/1900	
	20MHz	QPSK	1	0	22.13	22.25	22.07	23.00
1			50	21.82	21.99	22.29	23.00	
1			99	22.02	22.05	22.21	23.00	
50			0	20.98	21.17	21.14	22.00	
50			25	20.81	21.11	20.97	22.00	
50			50	20.94	21.14	20.85	22.00	
100			0	20.89	21.13	20.96	22.00	
16QAM		1	0	21.38	21.47	21.36	22.00	
		1	50	21.34	21.43	21.21	22.00	
		1	99	21.46	21.38	21.32	22.00	
		50	0	20.02	20.21	20.80	21.00	
		50	25	19.81	20.06	20.09	21.00	
		50	50	19.88	20.00	19.90	21.00	
		100	0	19.99	19.98	19.94	21.00	
64QAM		1	0	19.79	19.88	19.85	21.00	
		1	50	19.87	19.92	19.89	21.00	
		1	99	19.83	19.85	19.90	21.00	
		50	0	19.01	19.21	19.31	20.00	
		50	25	19.34	19.15	19.22	20.00	
		50	50	19.02	19.17	19.20	20.00	
		100	0	19.06	19.34	19.33	20.00	

LTE FDD Band 4 (Receiver on)				Conducted Power(dBm)			Tune-up Limit
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			
				19957/1710.7	20175/1732.5	20393/1754.3	
1.4MHz	QPSK	1	0	15.38	15.62	15.72	16.30
		1	2	15.43	15.53	15.12	16.30
		1	5	15.43	15.36	15.24	16.30
		3	0	15.40	15.29	15.43	16.30
		3	2	15.23	15.17	15.34	16.30
		3	3	15.38	15.33	15.19	16.30
		6	0	15.18	15.44	15.37	16.30
	16QAM	1	0	15.93	16.17	16.07	16.30
		1	2	15.69	15.78	15.74	16.30
		1	5	15.84	15.59	15.81	16.30
		3	0	15.32	15.35	15.39	16.30
		3	2	15.20	15.27	15.30	16.30
		3	3	15.27	15.26	15.18	16.30
		6	0	15.20	15.41	15.36	16.30
	64QAM	1	0	15.81	15.85	15.88	16.30
		1	2	15.93	15.79	15.90	16.30
		1	5	15.85	15.93	15.94	16.30
		3	0	15.93	15.69	15.81	16.30
		3	2	15.83	15.74	15.79	16.30
		3	3	15.89	15.81	15.85	16.30
		6	0	15.93	15.77	15.83	16.30
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				19965/1711.5	20175/1732.5	20385/1753.5	
3MHz	QPSK	1	0	15.40	15.66	15.75	16.30
		1	7	15.43	15.55	15.16	16.30
		1	14	15.46	15.41	15.28	16.30
		8	0	15.44	15.36	15.50	16.30
		8	4	15.26	15.25	15.40	16.30
		8	7	15.42	15.38	15.23	16.30
		15	0	15.20	15.48	15.40	16.30
	16QAM	1	0	15.96	16.19	16.10	16.30
		1	7	15.72	15.80	15.78	16.30
		1	14	15.86	15.63	15.84	16.30
		8	0	15.37	15.39	15.42	16.30
		8	4	15.25	15.34	15.36	16.30
		8	7	15.31	15.32	15.25	16.30
		15	0	15.23	15.45	15.39	16.30
	64QAM	1	0	15.84	15.87	15.91	16.30
		1	7	15.96	15.81	15.94	16.30

Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit	
				19975/1712.5	20175/1732.5	20375/1752.5		
		1	14	15.87	15.97	15.97	16.30	
		8	0	15.98	15.73	15.84	16.30	
		8	4	15.88	15.81	15.85	16.30	
		8	7	15.93	15.87	15.92	16.30	
		15	0	15.95	15.83	15.88	16.30	
5MHz	QPSK	1	0	15.37	15.64	15.71	16.30	
		1	13	15.41	15.51	15.13	16.30	
		1	24	15.43	15.36	15.24	16.30	
		12	0	15.41	15.31	15.46	16.30	
		12	6	15.24	15.21	15.35	16.30	
		12	13	15.40	15.36	15.19	16.30	
		25	0	15.18	15.47	15.38	16.30	
	16QAM	1	0	15.93	16.15	16.07	16.30	
		1	13	15.69	15.78	15.75	16.30	
		1	24	15.83	15.61	15.80	16.30	
		12	0	15.35	15.35	15.39	16.30	
		12	6	15.22	15.29	15.32	16.30	
		12	13	15.28	15.27	15.21	16.30	
		25	0	15.21	15.41	15.34	16.30	
	64QAM	1	0	15.81	15.83	15.88	16.30	
		1	13	15.93	15.79	15.91	16.30	
		1	24	15.84	15.95	15.93	16.30	
		12	0	15.96	15.69	15.81	16.30	
		12	6	15.85	15.76	15.81	16.30	
		12	13	15.90	15.82	15.88	16.30	
		25	0	15.93	15.79	15.83	16.30	
	Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
					20000/1715	20175/1732.5	20350/1750	
	10MHz	QPSK	1	0	15.38	15.63	15.73	16.30
			1	25	15.42	15.55	15.15	16.30
			1	49	15.44	15.38	15.26	16.30
			25	0	15.42	15.35	15.48	16.30
			25	13	15.26	15.24	15.38	16.30
25			25	15.40	15.36	15.23	16.30	
50			0	15.18	15.48	15.39	16.30	
16QAM		1	0	15.92	16.13	16.07	16.30	
		1	25	15.71	15.81	15.73	16.30	
		1	49	15.84	15.59	15.82	16.30	
		25	0	15.33	15.39	15.40	16.30	
		25	13	15.21	15.28	15.33	16.30	
		25	25	15.30	15.31	15.20	16.30	

Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit	
				20025/1717.5	20175/1732.5	20325/1747.5		
	64QAM	50	0	15.20	15.43	15.34	16.30	
		1	0	15.81	15.82	15.89	16.30	
		1	25	15.95	15.81	15.91	16.30	
		1	49	15.84	15.92	15.94	16.30	
		25	0	15.98	15.73	15.80	16.30	
		25	13	15.83	15.77	15.80	16.30	
		25	25	15.91	15.83	15.91	16.30	
		50	0	15.95	15.82	15.84	16.30	
15MHz	QPSK	1	0	15.38	15.61	15.72	16.30	
		1	38	15.42	15.55	15.14	16.30	
		1	74	15.42	15.35	15.23	16.30	
		36	0	15.42	15.32	15.47	16.30	
		36	18	15.24	15.21	15.35	16.30	
		36	39	15.39	15.37	15.20	16.30	
		75	0	15.21	15.45	15.37	16.30	
	16QAM	1	0	15.90	16.16	16.07	16.30	
		1	38	15.70	15.79	15.76	16.30	
		1	74	15.83	15.59	15.80	16.30	
		36	0	15.35	15.38	15.40	16.30	
		36	18	15.21	15.28	15.31	16.30	
		36	39	15.29	15.28	15.22	16.30	
		75	0	15.21	15.41	15.34	16.30	
	64QAM	1	0	15.78	15.84	15.88	16.30	
		1	38	15.94	15.80	15.92	16.30	
		1	74	15.84	15.93	15.93	16.30	
		36	0	15.96	15.72	15.82	16.30	
		36	18	15.84	15.75	15.80	16.30	
		36	39	15.91	15.83	15.89	16.30	
		75	0	15.93	15.79	15.83	16.30	
	Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
					20050/1720	20175/1732.5	20300/1745	
	20MHz	QPSK	1	0	15.35	15.57	15.69	16.30
			1	50	15.41	15.51	15.12	16.30
			1	99	15.40	15.34	15.20	16.30
			50	0	15.39	15.27	15.43	16.30
			50	25	15.22	15.17	15.32	16.30
50			50	15.36	15.32	15.16	16.30	
100			0	15.18	15.40	15.33	16.30	
16QAM		1	0	15.88	16.12	16.02	16.30	
		1	50	15.66	15.77	15.72	16.30	
		1	99	15.81	15.56	15.78	16.30	

		50	0	15.32	15.34	15.37	16.30
		50	25	15.18	15.26	15.28	16.30
		50	50	15.26	15.23	15.18	16.30
		100	0	15.19	15.37	15.31	16.30
	64QAM	1	0	15.76	15.80	15.83	16.30
		1	50	15.90	15.78	15.88	16.30
		1	99	15.82	15.90	15.91	16.30
		50	0	15.93	15.68	15.79	16.30
		50	25	15.81	15.73	15.77	16.30
		50	50	15.88	15.78	15.85	16.30
		100	0	15.91	15.75	15.80	16.30

LTE FDD Band 4 (Receiver off)				Conducted Power(dBm)			Tune-up Limit	
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)				
				19957/1710.7	20175/1732.5	20393/1754.3		
1.4MHz	QPSK	1	0	22.06	21.88	22.04	22.80	
		1	2	21.91	21.79	21.79	22.80	
		1	5	21.86	21.80	21.81	22.80	
		3	0	21.02	20.91	20.92	22.80	
		3	2	20.83	20.83	20.82	22.80	
		3	3	20.85	20.81	20.84	22.80	
		6	0	20.87	20.89	20.77	21.80	
	16QAM	1	0	21.13	20.87	21.19	21.80	
		1	2	21.12	21.13	21.12	21.80	
		1	5	21.18	21.18	21.06	21.80	
		3	0	20.17	20.37	20.24	21.80	
		3	2	20.06	20.31	20.15	21.80	
		3	3	20.26	20.30	20.09	20.80	
		6	0	20.14	20.30	20.07	20.80	
	64QAM	1	0	20.40	20.46	20.44	20.80	
		1	2	20.26	20.02	20.05	20.80	
		1	5	20.18	20.27	20.36	20.80	
		3	0	18.35	18.63	18.68	20.80	
		3	2	19.01	18.92	18.71	20.80	
		3	3	19.02	19.26	19.13	20.80	
		6	0	18.88	19.01	19.13	19.80	
	Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
	3MHz	QPSK	1	0	19965/1711.5	20175/1732.5	20385/1753.5	22.80
			1	7	22.08	21.92	22.07	22.80
1			14	21.91	21.81	21.83	22.80	
8			0	21.89	21.85	21.85	22.80	
				21.06	20.98	20.99	21.80	

		8	4	20.86	20.91	20.88	21.80
		8	7	20.89	20.84	20.72	21.80
		15	0	20.89	20.93	20.80	21.80
	16QAM	1	0	21.16	20.89	21.22	21.80
		1	7	21.15	21.15	21.16	21.80
		1	14	21.20	21.22	21.09	21.80
		8	0	20.22	20.41	20.27	20.80
		8	4	20.11	20.38	20.21	20.80
		8	7	20.30	20.36	20.16	20.80
	64QAM	15	0	20.17	20.34	20.10	20.80
		1	0	20.43	20.48	20.47	20.80
		1	7	20.29	20.04	20.09	20.80
		1	14	20.20	20.31	20.39	20.80
		8	0	18.40	18.67	18.71	19.80
		8	4	19.06	18.99	18.77	19.80
8		7	19.06	19.32	19.20	19.80	
		15	0	18.90	19.07	19.18	19.80
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				19975/1712.5	20175/1732.5	20375/1752.5	
5MHz	QPSK	1	0	22.05	21.90	22.03	22.80
		1	13	21.89	21.77	21.80	22.80
		1	24	21.86	21.80	21.81	22.80
		12	0	21.03	20.93	20.95	21.80
		12	6	20.84	20.87	20.83	21.80
		12	13	20.87	20.82	20.68	21.80
		25	0	20.87	20.92	20.78	21.80
	16QAM	1	0	21.13	20.85	21.19	21.80
		1	13	21.12	21.13	21.13	21.80
		1	24	21.17	21.20	21.05	21.80
		12	0	20.20	20.37	20.24	20.80
		12	6	20.08	20.33	20.17	20.80
		12	13	20.27	20.31	20.12	20.80
		25	0	20.15	20.30	20.05	20.80
	64QAM	1	0	20.40	20.44	20.44	20.80
		1	13	20.26	20.02	20.06	20.80
		1	24	20.17	20.29	20.35	20.80
		12	0	18.38	18.63	18.68	19.80
		12	6	19.03	18.94	18.73	19.80
		12	13	19.03	19.27	19.16	19.80
		25	0	18.88	19.03	19.13	19.80
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				20000/1715	20175/1732.5	20350/1750	
10MHz	QPSK	1	0	22.06	21.89	22.05	22.80

		1	25	21.90	21.81	21.82	22.80		
		1	49	21.87	21.82	21.83	22.80		
		25	0	21.04	20.97	20.97	21.80		
		25	13	20.86	20.90	20.86	21.80		
		25	25	20.87	20.82	20.72	21.80		
		50	0	20.87	20.93	20.79	21.80		
	16QAM	1	0	21.12	20.83	21.19	21.80		
		1	25	21.14	21.16	21.11	21.80		
		1	49	21.18	21.18	21.07	21.80		
		25	0	20.18	20.41	20.25	20.80		
		25	13	20.07	20.32	20.18	20.80		
		25	25	20.29	20.35	20.11	20.80		
	64QAM	50	0	20.14	20.32	20.05	20.80		
		1	0	20.40	20.43	20.45	20.80		
		1	25	20.28	20.04	20.06	20.80		
		1	49	20.17	20.26	20.36	20.80		
		25	0	18.40	18.67	18.67	19.80		
		25	13	19.01	18.95	18.72	19.80		
	15MHz	QPSK	25	25	19.04	19.28	19.19	19.80	
			50	0	18.90	19.06	19.14	19.80	
						Channel/Frequency (MHz)			Tune-up Limit
			20025/1717.5	20175/1732.5	20325/1747.5				
			QPSK	1	0	22.06	21.87	22.04	22.80
				1	38	21.90	21.81	21.81	22.80
				1	74	21.85	21.79	21.80	22.80
		36		0	21.04	20.94	20.96	21.80	
		36		18	20.84	20.87	20.83	21.80	
		36		39	20.86	20.83	20.69	21.80	
		75		0	20.90	20.90	20.77	21.80	
		16QAM	1	0	21.10	20.86	21.19	21.80	
			1	38	21.13	21.14	21.14	21.80	
			1	74	21.17	21.18	21.05	21.80	
			36	0	20.20	20.40	20.25	20.80	
			36	18	20.07	20.32	20.16	20.80	
			36	39	20.28	20.32	20.13	20.80	
			75	0	20.15	20.30	20.05	20.80	
		64QAM	1	0	20.37	20.45	20.44	20.80	
			1	38	20.27	20.03	20.07	20.80	
			1	74	20.17	20.27	20.35	20.80	
	36		0	18.38	18.66	18.69	19.80		
	36		18	19.02	18.93	18.72	19.80		
	36		39	19.04	19.28	19.17	19.80		
	75		0	18.88	19.03	19.13	19.80		

Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				20050/1720	20175/1732.5	20300/1745	
20MHz	QPSK	1	0	22.03	21.83	22.01	22.80
		1	50	21.89	21.77	21.79	22.80
		1	99	21.83	21.78	21.77	22.80
		50	0	21.01	20.89	20.92	21.80
		50	25	20.82	20.83	20.80	21.80
		50	50	20.83	20.78	20.65	21.80
		100	0	20.87	20.85	20.73	21.80
	16QAM	1	0	21.08	20.82	21.14	21.80
		1	50	21.09	21.12	21.10	21.80
		1	99	21.15	21.15	21.03	21.80
		50	0	20.17	20.36	20.22	20.80
		50	25	20.04	20.30	20.13	20.80
		50	50	20.25	20.27	20.09	20.80
		100	0	20.13	20.26	20.02	20.80
	64QAM	1	0	20.35	20.41	20.39	20.80
		1	50	20.23	20.01	20.03	20.80
		1	99	20.15	20.24	20.33	20.80
		50	0	18.35	18.62	18.66	19.80
		50	25	18.99	18.91	18.69	19.80
		50	50	19.01	19.23	19.13	19.80
		100	0	18.86	18.99	19.10	19.80

LTE FDD Band 5 (Receiver on)				Conducted Power(dBm)			Tune-up Limit
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			
				20407/824.7	20525/836.5	20643/848.3	
1.4MHz	QPSK	1	0	18.13	18.03	18.00	19.00
		1	2	18.21	18.10	18.08	19.00
		1	5	18.04	18.15	18.05	19.00
		3	0	18.18	18.02	18.15	19.00
		3	2	18.10	18.10	18.14	19.00
		3	3	18.10	18.02	18.00	19.00
		6	0	18.00	18.13	18.00	19.00
	16QAM	1	0	18.25	18.51	18.52	19.00
		1	2	18.54	18.51	17.93	19.00
		1	5	18.55	18.45	18.70	19.00
		3	0	18.00	17.83	17.87	19.00
		3	2	18.02	18.12	17.87	19.00
		3	3	18.13	18.14	17.92	19.00
		6	0	18.08	18.11	18.00	19.00
	64QAM	1	0	18.07	18.26	18.15	19.00

		1	2	18.24	18.14	18.09	19.00	
		1	5	18.18	18.27	18.13	19.00	
		3	0	17.92	17.97	17.78	19.00	
		3	2	17.92	17.88	17.85	19.00	
		3	3	17.92	17.96	18.92	19.00	
		6	0	18.12	18.16	18.16	19.00	
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit	
				20415/825.5	20525/836.5	20635/847.5		
3MHz	QPSK	1	0	18.14	18.02	18.02	19.00	
		1	7	18.22	18.14	18.10	19.00	
		1	14	18.05	18.17	18.07	19.00	
		8	0	18.19	18.06	18.17	19.00	
		8	4	18.12	18.13	18.17	19.00	
		8	7	18.10	18.02	18.04	19.00	
	16QAM	15	0	18.00	18.14	18.01	19.00	
		1	0	18.24	18.49	18.52	19.00	
		1	7	18.56	18.54	17.91	19.00	
		1	14	18.56	18.43	18.72	19.00	
		8	0	17.98	17.87	17.88	19.00	
		8	4	18.01	18.11	17.88	19.00	
	64QAM	8	7	18.15	18.18	17.91	19.00	
		15	0	18.07	18.13	18.00	19.00	
		1	0	18.07	18.25	18.16	19.00	
		1	7	18.26	18.16	18.09	19.00	
		1	14	18.18	18.24	18.14	19.00	
		8	0	17.94	18.01	17.77	19.00	
	5MHz	QPSK	8	4	17.90	17.89	17.84	19.00
			8	7	17.93	17.97	18.95	19.00
			15	0	18.14	18.19	18.17	19.00
1			0	18.14	18.00	18.01	19.00	
1			13	18.22	18.14	18.09	19.00	
1			24	18.03	18.14	18.04	19.00	
16QAM		12	0	18.19	18.03	18.16	19.00	
		12	6	18.10	18.10	18.14	19.00	
		12	13	18.09	18.03	18.01	19.00	
		25	0	18.03	18.11	17.99	19.00	
		1	0	18.22	18.52	18.52	19.00	
		1	13	18.55	18.52	17.94	19.00	
16QAM		1	24	18.55	18.43	18.70	19.00	
		12	0	18.00	17.86	17.88	19.00	
		12	6	18.01	18.11	17.86	19.00	
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit	
				20425/826.5	20525/836.5	20625/846.5		

Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit	
				20450/829	20525/836.5	20600/844		
10MHz	64QAM	12	13	18.14	18.15	17.93	19.00	
		25	0	18.08	18.11	18.00	19.00	
		1	0	18.04	18.27	18.15	19.00	
		1	13	18.25	18.15	18.10	19.00	
		1	24	18.18	18.25	18.13	19.00	
		12	0	17.92	18.00	17.79	19.00	
		12	6	17.91	17.87	17.84	19.00	
		12	13	17.93	17.97	18.93	19.00	
		25	0	18.12	18.16	18.16	19.00	
	10MHz	QPSK	1	0	18.11	17.96	17.98	19.00
			1	25	18.21	18.10	18.07	19.00
			1	49	18.01	18.13	18.01	19.00
			25	0	18.16	17.98	18.12	19.00
			25	13	18.08	18.06	18.11	19.00
			25	25	18.06	17.98	17.97	19.00
			50	0	18.00	18.06	17.95	19.00
		16QAM	1	0	18.20	18.48	18.47	19.00
			1	25	18.51	18.50	17.90	19.00
1			49	18.53	18.40	18.68	19.00	
25			0	17.97	17.82	17.85	19.00	
25			13	17.98	18.09	17.83	19.00	
25			25	18.11	18.10	17.89	19.00	
50			0	18.06	18.07	17.97	19.00	
64QAM		1	0	18.02	18.23	18.10	19.00	
		1	25	18.21	18.13	18.06	19.00	
		1	49	18.16	18.22	18.11	19.00	
		25	0	17.89	17.96	17.76	19.00	
	25	13	17.88	17.85	17.81	19.00		
	25	25	17.90	17.92	18.89	19.00		
	50	0	18.10	18.12	18.13	19.00		

LTE FDD Band 5 (Receiver off)				Conducted Power(dBm)			Tune-up Limit
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			
				20407/824.7	20525/836.5	20643/848.3	
1.4MHz	QPSK	1	0	24.23	24.25	24.41	25.00
		1	2	24.35	24.35	24.33	25.00
		1	5	24.29	24.25	24.34	25.00
		3	0	23.32	23.24	23.39	25.00
		3	2	23.26	23.21	23.31	25.00
		3	3	23.19	23.18	23.25	25.00

	16QAM	6	0	23.28	23.36	23.42	24.00
		1	0	23.52	23.09	23.34	24.00
		1	2	23.38	23.24	23.29	24.00
		1	5	23.31	23.23	23.29	24.00
		3	0	22.32	22.23	22.16	24.00
		3	2	22.30	22.22	22.21	24.00
		3	3	22.19	22.18	22.19	24.00
		6	0	22.14	22.17	22.12	24.00
	64QAM	1	0	22.23	22.12	22.20	23.00
		1	2	22.10	22.12	22.11	23.00
		1	5	22.05	22.10	22.12	23.00
		3	0	21.03	21.06	21.05	23.00
		3	2	21.02	20.98	21.01	23.00
		3	3	21.48	21.35	21.40	23.00
		6	0	21.04	21.08	21.02	22.00
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				20415/825.5	20525/836.5	20635/847.5	
3MHz	QPSK	1	0	24.24	24.24	24.43	25.00
		1	7	24.36	24.39	24.35	25.00
		1	14	24.30	24.27	24.36	25.00
		8	0	23.33	23.28	23.41	24.00
		8	4	23.28	23.24	23.34	24.00
		8	7	23.19	23.18	23.29	24.00
		15	0	23.28	23.37	23.43	24.00
	16QAM	1	0	23.51	23.07	23.34	24.00
		1	7	23.40	23.27	23.27	24.00
		1	14	23.32	23.21	23.31	24.00
		8	0	22.30	22.27	22.17	23.00
		8	4	22.29	22.21	22.22	23.00
		8	7	22.21	22.22	22.18	23.00
		15	0	22.13	22.19	22.12	23.00
	64QAM	1	0	22.23	22.11	22.21	23.00
		1	7	22.12	22.14	22.11	23.00
		1	14	22.05	22.07	22.13	23.00
		8	0	21.05	21.10	21.04	22.00
		8	4	21.00	20.99	21.00	22.00
		8	7	20.99	20.86	20.93	22.00
		15	0	21.06	21.11	21.03	22.00
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				20425/826.5	20525/836.5	20625/846.5	
5MHz	QPSK	1	0	24.24	24.22	24.42	25.00
		1	13	24.36	24.39	24.34	25.00
		1	24	24.28	24.24	24.33	25.00

		12	0	23.33	23.25	23.40	24.00
		12	6	23.26	23.21	23.31	24.00
		12	13	23.18	23.19	23.26	24.00
		25	0	23.31	23.34	23.41	24.00
	16QAM	1	0	23.49	23.10	23.34	24.00
		1	13	23.39	23.25	23.30	24.00
		1	24	23.31	23.21	23.29	24.00
		12	0	22.32	22.26	22.17	23.00
		12	6	22.29	22.21	22.20	23.00
		12	13	22.20	22.19	22.20	23.00
		25	0	22.14	22.17	22.12	23.00
		64QAM	1	0	22.20	22.13	22.20
	1		13	22.11	22.13	22.12	23.00
	1		24	22.05	22.08	22.12	23.00
	12		0	21.03	21.09	21.06	22.00
	12		6	21.01	20.97	21.00	22.00
	12		13	20.99	20.86	20.91	22.00
	25		0	21.04	21.08	21.02	22.00
	Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)		
20450/829					20525/836.5	20600/844	
10MHz	QPSK	1	0	24.21	24.18	24.39	25.00
		1	25	24.35	24.35	24.32	25.00
		1	49	24.26	24.23	24.30	25.00
		25	0	23.30	23.20	23.36	24.00
		25	13	23.24	23.17	23.28	24.00
		25	25	23.15	23.14	23.22	24.00
		50	0	23.28	23.29	23.37	24.00
	16QAM	1	0	23.47	23.06	23.29	24.00
		1	25	23.35	23.23	23.26	24.00
		1	49	23.29	23.18	23.27	24.00
		25	0	22.29	22.22	22.14	23.00
		25	13	22.26	22.19	22.17	23.00
		25	25	22.17	22.14	22.16	23.00
		50	0	22.12	22.13	22.09	23.00
	64QAM	1	0	22.18	22.09	22.15	23.00
		1	25	22.07	22.11	22.08	23.00
		1	49	22.03	22.05	22.10	23.00
		25	0	21.00	21.05	21.03	22.00
		25	13	20.98	20.95	20.97	22.00
		25	25	20.96	20.81	20.87	22.00
		50	0	21.02	21.04	20.99	22.00

LTE FDD Band 7 (Receiver on)				Conducted Power(dBm)			Tune-up Limit
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			
				20775/2502.5	21100/2535	21425/2567.5	
5MHz	QPSK	1	0	15.27	15.52	15.33	16.50
		1	13	15.18	15.26	15.09	16.50
		1	24	15.36	15.48	15.34	16.50
		12	0	15.19	15.19	15.05	16.50
		12	6	15.38	15.33	15.17	16.50
		12	13	15.18	15.49	15.34	16.50
		25	0	15.33	15.39	15.14	16.50
	16QAM	1	0	15.63	15.20	15.89	16.50
		1	13	15.74	15.64	15.57	16.50
		1	24	15.63	15.63	15.79	16.50
		12	0	15.34	15.27	15.12	16.50
		12	6	15.22	15.11	15.08	16.50
		12	13	15.15	15.08	15.10	16.50
		25	0	15.28	15.07	15.03	16.50
	64QAM	1	0	15.17	15.07	15.34	16.50
		1	13	15.24	15.33	15.17	16.50
		1	24	15.17	15.35	15.27	16.50
		12	0	15.25	15.17	15.30	16.50
		12	6	15.29	15.20	15.24	16.50
		12	13	15.26	15.23	15.26	16.50
		25	0	15.32	15.37	15.34	16.50
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				20800/2505	21100/2535	21400/2565	
10MHz	QPSK	1	0	15.28	15.51	15.35	16.50
		1	25	15.19	15.30	15.11	16.50
		1	49	15.37	15.50	15.36	16.50
		25	0	15.20	15.23	15.07	16.50
		25	13	15.40	15.36	15.20	16.50
		25	25	15.18	15.49	15.38	16.50
		50	0	15.33	15.40	15.15	16.50
	16QAM	1	0	15.62	15.18	15.89	16.50
		1	25	15.76	15.67	15.55	16.50
		1	49	15.64	15.61	15.81	16.50
		25	0	15.32	15.31	15.13	16.50
		25	13	15.21	15.10	15.09	16.50
		25	25	15.17	15.12	15.09	16.50
		50	0	15.27	15.09	15.03	16.50
	64QAM	1	0	15.17	15.06	15.35	16.50
		1	25	15.26	15.35	15.17	16.50

Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit	
				20825/2507.5	21100/2535	21375/2562.5		
		1	49	15.17	15.32	15.28	16.50	
		25	0	15.27	15.21	15.29	16.50	
		25	13	15.27	15.21	15.23	16.50	
		25	25	15.27	15.24	15.29	16.50	
		50	0	15.34	15.40	15.35	16.50	
15MHz	QPSK	1	0	15.28	15.49	15.34	16.50	
		1	38	15.19	15.30	15.10	16.50	
		1	74	15.35	15.47	15.33	16.50	
		36	0	15.20	15.20	15.06	16.50	
		36	18	15.38	15.33	15.17	16.50	
		36	39	15.17	15.50	15.35	16.50	
		75	0	15.36	15.37	15.13	16.50	
	16QAM	1	0	15.60	15.21	15.89	16.50	
		1	38	15.75	15.65	15.58	16.50	
		1	74	15.63	15.61	15.79	16.50	
		36	0	15.34	15.30	15.13	16.50	
		36	18	15.21	15.10	15.07	16.50	
		36	39	15.16	15.09	15.11	16.50	
		75	0	15.28	15.07	15.03	16.50	
	64QAM	1	0	15.14	15.08	15.34	16.50	
		1	38	15.25	15.34	15.18	16.50	
		1	74	15.17	15.33	15.27	16.50	
		36	0	15.25	15.20	15.31	16.50	
		36	18	15.28	15.19	15.23	16.50	
		36	39	15.27	15.24	15.27	16.50	
		75	0	15.32	15.37	15.34	16.50	
	Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
					20850/2510	21100/2535	21350/2560	
	20MHz	QPSK	1	0	15.25	15.45	15.31	16.50
			1	50	15.18	15.26	15.08	16.50
			1	99	15.33	15.46	15.30	16.50
			50	0	15.17	15.15	15.02	16.50
			50	25	15.36	15.29	15.14	16.50
50			50	15.14	15.45	15.31	16.50	
100			0	15.33	15.32	15.09	16.50	
16QAM		1	0	15.58	15.17	15.84	16.50	
		1	50	15.71	15.63	15.54	16.50	
		1	99	15.61	15.58	15.77	16.50	
		50	0	15.31	15.26	15.10	16.50	
		50	25	15.18	15.08	15.04	16.50	
		50	50	15.13	15.04	15.07	16.50	

	64QAM	100	0	15.26	15.03	15.00	16.50
		1	0	15.12	15.04	15.29	16.50
		1	50	15.21	15.32	15.14	16.50
		1	99	15.15	15.30	15.25	16.50
		50	0	15.22	15.16	15.28	16.50
		50	25	15.25	15.17	15.20	16.50
		50	50	15.24	15.19	15.23	16.50
		100	0	15.30	15.33	15.31	16.50

LTE FDD Band 7 (Receiver off)				Conducted Power(dBm)			Tune-up Limit
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			
				20775/2502.5	21100/2535	21425/2567.5	
5MHz	QPSK	1	0	19.94	20.10	19.88	20.50
		1	13	20.06	19.82	19.83	20.50
		1	24	20.06	20.21	19.67	20.50
		12	0	19.99	19.82	19.74	20.50
		12	6	19.88	19.98	19.69	20.50
		12	13	20.08	19.83	19.80	20.50
		25	0	19.85	19.98	19.60	20.50
	16QAM	1	0	20.33	20.19	20.14	20.50
		1	13	20.28	20.07	20.08	20.50
		1	24	20.25	20.20	20.08	20.50
		12	0	19.98	19.71	19.71	20.50
		12	6	19.87	19.79	19.55	20.50
		12	13	20.04	19.93	19.59	20.50
		25	0	19.77	19.78	19.67	20.50
	64QAM	1	0	19.97	19.91	19.80	20.50
		1	13	19.98	19.99	19.85	20.50
		1	24	20.05	20.09	19.70	20.50
		12	0	19.90	19.74	19.65	20.50
		12	6	19.82	19.94	19.55	20.50
		12	13	19.83	19.83	19.58	20.50
		25	0	19.74	19.93	19.71	20.50
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				20800/2505	21100/2535	21400/2565	
10MHz	QPSK	1	0	19.95	20.09	19.90	20.50
		1	25	20.07	19.86	19.85	20.50
		1	49	20.07	20.23	19.69	20.50
		25	0	20.00	19.86	19.76	20.50
		25	13	19.90	20.01	19.72	20.50
		25	25	20.08	19.83	19.84	20.50
		50	0	19.85	19.99	19.61	20.50

	16QAM	1	0	20.32	20.17	20.14	20.50
		1	25	20.30	20.10	20.06	20.50
		1	49	20.26	20.18	20.10	20.50
		25	0	19.96	19.75	19.72	20.50
		25	13	19.86	19.78	19.56	20.50
		25	25	20.06	19.97	19.58	20.50
		50	0	19.76	19.80	19.67	20.50
	64QAM	1	0	19.97	19.90	19.81	20.50
		1	25	20.00	20.01	19.85	20.50
		1	49	20.05	20.06	19.71	20.50
		25	0	19.92	19.78	19.64	20.50
		25	13	19.80	19.95	19.54	20.50
		25	25	19.84	19.84	19.61	20.50
		50	0	19.76	19.96	19.72	20.50
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				20825/2507.5	21100/2535	21375/2562.5	
15MHz	QPSK	1	0	19.95	20.07	19.89	20.50
		1	38	20.07	19.86	19.84	20.50
		1	74	20.05	20.20	19.66	20.50
		36	0	20.00	19.83	19.75	20.50
		36	18	19.88	19.98	19.69	20.50
		36	39	20.07	19.84	19.81	20.50
		75	0	19.88	19.96	19.59	20.50
	16QAM	1	0	20.30	20.20	20.14	20.50
		1	38	20.29	20.08	20.09	20.50
		1	74	20.25	20.18	20.08	20.50
		36	0	19.98	19.74	19.72	20.50
		36	18	19.86	19.78	19.54	20.50
		36	39	20.05	19.94	19.60	20.50
		75	0	19.77	19.78	19.67	20.50
	64QAM	1	0	19.94	19.92	19.80	20.50
		1	38	19.99	20.00	19.86	20.50
		1	74	20.05	20.07	19.70	20.50
		36	0	19.90	19.77	19.66	20.50
		36	18	19.81	19.93	19.54	20.50
		36	39	19.84	19.84	19.59	20.50
		75	0	19.74	19.93	19.71	20.50
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				20850/2510	21100/2535	21350/2560	
20MHz	QPSK	1	0	19.92	20.03	19.86	20.50
		1	50	20.06	19.82	19.82	20.50
		1	99	20.03	20.19	19.63	20.50
		50	0	19.97	19.78	19.71	20.50

		50	25	19.86	19.94	19.66	20.50
		50	50	20.04	19.79	19.77	20.50
		100	0	19.85	19.91	19.55	20.50
	16QAM	1	0	20.28	20.16	20.09	20.50
		1	50	20.25	20.06	20.05	20.50
		1	99	20.23	20.15	20.06	20.50
		50	0	19.95	19.70	19.69	20.50
		50	25	19.83	19.76	19.51	20.50
		50	50	20.02	19.89	19.56	20.50
		100	0	19.75	19.74	19.64	20.50
	64QAM	1	0	19.92	19.88	19.75	20.50
		1	50	19.95	19.98	19.82	20.50
		1	99	20.03	20.04	19.68	20.50
		50	0	19.87	19.73	19.63	20.50
		50	25	19.78	19.91	19.51	20.50
		50	50	19.81	19.79	19.55	20.50
100		0	19.72	19.89	19.68	20.50	

LTE FDD Band 12 (Receiver on)				Conducted Power(dBm)			Tune-up Limit
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			
				23017/699.7	23095/707.5	23173/715.3	
1.4MHz	QPSK	1	0	20.10	20.34	20.14	21.00
		1	2	20.34	20.26	20.32	21.00
		1	5	20.26	20.25	20.27	21.00
		3	0	20.16	20.18	20.22	21.00
		3	2	20.34	20.25	20.24	21.00
		3	3	20.26	20.21	20.15	21.00
		6	0	20.17	20.26	20.33	21.00
	16QAM	1	0	20.49	20.47	20.46	21.00
		1	2	20.62	20.40	20.35	21.00
		1	5	20.50	20.34	20.55	21.00
		3	0	20.10	20.11	20.23	21.00
		3	2	20.23	20.12	20.27	21.00
		3	3	20.30	20.18	20.07	21.00
		6	0	20.24	20.22	20.27	21.00
	64QAM	1	0	20.08	20.13	20.16	21.00
		1	2	20.15	20.08	20.09	21.00
		1	5	20.03	20.08	20.06	21.00
		3	0	20.11	20.16	20.13	21.00
		3	2	20.09	20.13	20.18	21.00
		3	3	20.02	20.02	20.05	21.00
		6	0	20.09	20.33	20.20	21.00

Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				23025/700.5	23095/707.5	23165/714.5	
3MHz	QPSK	1	0	20.11	20.33	20.16	21.00
		1	7	20.35	20.30	20.34	21.00
		1	14	20.27	20.27	20.29	21.00
		8	0	20.17	20.22	20.24	21.00
		8	4	20.36	20.28	20.27	21.00
		8	7	20.26	20.21	20.19	21.00
		15	0	20.17	20.27	20.34	21.00
	16QAM	1	0	20.48	20.45	20.46	21.00
		1	7	20.64	20.43	20.33	21.00
		1	14	20.51	20.32	20.57	21.00
		8	0	20.08	20.15	20.24	21.00
		8	4	20.22	20.11	20.28	21.00
		8	7	20.32	20.22	20.06	21.00
		15	0	20.23	20.24	20.27	21.00
	64QAM	1	0	20.08	20.12	20.17	21.00
		1	7	20.17	20.10	20.09	21.00
		1	14	20.03	20.05	20.07	21.00
		8	0	20.13	20.20	20.12	21.00
		8	4	20.07	20.14	20.17	21.00
		8	7	20.03	20.03	20.08	21.00
		15	0	20.11	20.36	20.21	21.00
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				23035/701.5	23095/707.5	23155/713.5	
5MHz	QPSK	1	0	20.11	20.31	20.15	21.00
		1	13	20.35	20.30	20.33	21.00
		1	24	20.25	20.24	20.26	21.00
		12	0	20.17	20.19	20.23	21.00
		12	6	20.34	20.25	20.24	21.00
		12	13	20.25	20.22	20.16	21.00
		25	0	20.20	20.24	20.32	21.00
	16QAM	1	0	20.46	20.48	20.46	21.00
		1	13	20.63	20.41	20.36	21.00
		1	24	20.50	20.32	20.55	21.00
		12	0	20.10	20.14	20.24	21.00
		12	6	20.22	20.11	20.26	21.00
		12	13	20.31	20.19	20.08	21.00
		25	0	20.24	20.22	20.27	21.00
	64QAM	1	0	20.05	20.14	20.16	21.00
		1	13	20.16	20.09	20.10	21.00
		1	24	20.03	20.06	20.06	21.00
		12	0	20.11	20.19	20.14	21.00

Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				23060/704	23095/707.5	23130/711	
10MHz	QPSK	12	6	20.08	20.12	20.17	21.00
		12	13	20.03	20.03	20.06	21.00
		25	0	20.09	20.33	20.20	21.00
		1	0	20.08	20.27	20.12	21.00
		1	25	20.34	20.26	20.31	21.00
		1	49	20.23	20.23	20.23	21.00
		25	0	20.14	20.14	20.19	21.00
	25	13	20.32	20.21	20.21	21.00	
	25	25	20.22	20.17	20.12	21.00	
	50	0	20.17	20.19	20.28	21.00	
	16QAM	1	0	20.44	20.44	20.41	21.00
		1	25	20.59	20.39	20.32	21.00
		1	49	20.48	20.29	20.53	21.00
		25	0	20.07	20.10	20.21	21.00
		25	13	20.19	20.09	20.23	21.00
		25	25	20.28	20.14	20.04	21.00
		50	0	20.22	20.18	20.24	21.00
	64QAM	1	0	20.03	20.10	20.11	21.00
		1	25	20.12	20.07	20.06	21.00
		1	49	20.01	20.03	20.04	21.00
		25	0	20.08	20.15	20.11	21.00
		25	13	20.05	20.10	20.14	21.00
		25	25	20.00	19.98	20.02	21.00
		50	0	20.07	20.29	20.17	21.00

LTE FDD Band 12 (Receiver off)				Conducted Power(dBm)			Tune-up Limit
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			
				23017/699.7	23095/707.5	23173/715.3	
1.4MHz	QPSK	1	0	24.48	24.54	24.50	25.00
		1	2	24.53	24.60	24.63	25.00
		1	5	24.56	24.55	24.60	25.00
		3	0	23.48	23.61	23.50	25.00
		3	2	23.49	23.48	23.44	25.00
		3	3	23.57	23.43	23.42	25.00
		6	0	23.49	23.58	23.52	24.00
	16QAM	1	0	23.86	23.60	23.60	24.00
		1	2	23.65	23.60	23.49	24.00
		1	5	23.54	23.66	23.41	24.00
		3	0	22.47	22.56	22.50	24.00
		3	2	22.47	22.48	22.46	24.00

Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				23025/700.5	23095/707.5	23165/714.5	
	64QAM	3	3	22.45	22.52	22.45	24.00
		6	0	22.36	22.44	22.44	23.00
		1	0	22.56	22.62	22.65	23.00
		1	2	22.64	22.60	22.64	23.00
		1	5	22.53	22.57	22.61	23.00
		3	0	21.53	21.59	21.57	23.00
		3	2	21.49	21.50	21.52	23.00
		3	3	21.54	21.55	21.48	23.00
		6	0	21.61	21.64	21.63	22.00
3MHz	QPSK	1	0	24.50	24.58	24.53	25.00
		1	7	24.53	24.62	24.67	25.00
		1	14	24.59	24.60	24.64	25.00
		8	0	23.52	23.68	23.57	24.00
		8	4	23.52	23.56	23.50	24.00
		8	7	23.61	23.48	23.46	24.00
		15	0	23.51	23.62	23.55	24.00
	16QAM	1	0	23.89	23.62	23.63	24.00
		1	7	23.68	23.62	23.53	24.00
		1	14	23.56	23.70	23.44	24.00
		8	0	22.52	22.60	22.53	23.00
		8	4	22.52	22.55	22.52	23.00
		8	7	22.49	22.58	22.52	23.00
		15	0	22.39	22.48	22.47	23.00
	64QAM	1	0	22.59	22.64	22.68	23.00
		1	7	22.67	22.62	22.68	23.00
		1	14	22.55	22.61	22.64	23.00
		8	0	21.58	21.63	21.60	22.00
		8	4	21.54	21.57	21.58	22.00
		8	7	21.58	21.61	21.55	22.00
		15	0	21.63	21.70	21.68	22.00
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				23035/701.5	23095/707.5	23155/713.5	
5MHz	QPSK	1	0	24.48	24.53	24.50	25.00
		1	13	24.52	24.62	24.65	25.00
		1	24	24.55	24.54	24.59	25.00
		12	0	23.50	23.64	23.54	24.00
		12	6	23.50	23.52	23.45	24.00
		12	13	23.58	23.47	23.43	24.00
		25	0	23.52	23.59	23.52	24.00
	16QAM	1	0	23.83	23.59	23.60	24.00
		1	13	23.66	23.61	23.51	24.00

Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit		
				23060/704	23095/707.5	23130/711			
		1	24	23.53	23.66	23.40	24.00		
		12	0	22.50	22.59	22.51	23.00		
		12	6	22.48	22.49	22.47	23.00		
		12	13	22.47	22.54	22.49	23.00		
		25	0	22.37	22.44	22.42	23.00		
	64QAM	1	0	22.53	22.61	22.65	23.00		
		1	13	22.65	22.61	22.66	23.00		
		1	24	22.52	22.57	22.60	23.00		
		12	0	21.56	21.62	21.58	22.00		
		12	6	21.50	21.51	21.53	22.00		
		12	13	21.56	21.57	21.52	22.00		
		25	0	21.61	21.66	21.63	22.00		
		10MHz	QPSK	1	0	24.45	24.49	24.47	25.00
				1	25	24.51	24.58	24.63	25.00
1	49			24.53	24.53	24.56	25.00		
25	0			23.47	23.59	23.50	24.00		
25	13			23.48	23.48	23.42	24.00		
25	25			23.55	23.42	23.39	24.00		
50	0			23.49	23.54	23.48	24.00		
16QAM	1		0	23.81	23.55	23.55	24.00		
	1		25	23.62	23.59	23.47	24.00		
	1		49	23.51	23.63	23.38	24.00		
	25		0	22.47	22.55	22.48	23.00		
	25		13	22.45	22.47	22.44	23.00		
	25		25	22.44	22.49	22.45	23.00		
	50		0	22.35	22.40	22.39	23.00		
64QAM	1	0	22.51	22.57	22.60	23.00			
	1	25	22.61	22.59	22.62	23.00			
	1	49	22.50	22.54	22.58	23.00			
	25	0	21.53	21.58	21.55	22.00			
	25	13	21.47	21.49	21.50	22.00			
	25	25	21.53	21.52	21.48	22.00			
	50	0	21.59	21.62	21.60	22.00			

LTE FDD Band 17 (Receiver on)				Conducted Power(dBm)			Tune-up Limit
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			
				23755/706.5	23790/710	23825/713.5	
5MHz	QPSK	1	0	20.08	20.40	20.17	21.00
		1	13	20.31	20.42	20.31	21.00
		1	24	20.25	20.28	20.25	21.00

		12	0	20.14	20.15	20.16	21.00
		12	6	20.17	20.26	20.21	21.00
		12	13	20.10	20.22	20.34	21.00
		25	0	20.13	20.21	20.17	21.00
	16QAM	1	0	20.44	20.77	20.50	21.00
		1	13	20.55	20.70	20.61	21.00
		1	24	20.64	20.68	20.55	21.00
		12	0	20.16	20.23	20.24	21.00
		12	6	20.26	20.18	20.11	21.00
		12	13	20.08	20.13	20.20	21.00
		25	0	20.17	20.11	20.14	21.00
	64QAM	1	0	20.14	20.07	20.15	21.00
		1	13	20.04	20.07	20.20	21.00
		1	24	20.20	20.04	20.22	21.00
		12	0	20.01	20.07	20.16	21.00
		12	6	20.05	20.08	20.14	21.00
		12	13	20.10	20.15	20.25	21.00
		25	0	20.17	20.20	20.22	21.00
	Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)		
23780/709					23790/710	23800/711	
10MHz	QPSK	1	0	20.05	20.36	20.14	21.00
		1	25	20.30	20.38	20.29	21.00
		1	49	20.23	20.27	20.22	21.00
		25	0	20.11	20.10	20.12	21.00
		25	13	20.15	20.22	20.18	21.00
		25	25	20.07	20.17	20.30	21.00
		50	0	20.10	20.16	20.13	21.00
	16QAM	1	0	20.42	20.73	20.45	21.00
		1	25	20.51	20.68	20.57	21.00
		1	49	20.62	20.65	20.53	21.00
		25	0	20.13	20.19	20.21	21.00
		25	13	20.23	20.16	20.08	21.00
		25	25	20.05	20.08	20.16	21.00
		50	0	20.15	20.07	20.11	21.00
	64QAM	1	0	20.12	20.03	20.10	21.00
		1	25	20.00	20.05	20.16	21.00
		1	49	20.18	20.01	20.20	21.00
		25	0	19.98	20.03	20.13	21.00
		25	13	20.02	20.06	20.11	21.00
		25	25	20.07	20.10	20.21	21.00
		50	0	20.15	20.16	20.19	21.00

LTE FDD Band 17 (Receiver off)				Conducted Power(dBm)			Tune-up Limit
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			
				23755/706.5	23790/710	23825/713.5	
5MHz	QPSK	1	0	24.45	24.61	24.44	25.00
		1	13	24.60	24.48	24.55	25.00
		1	24	24.52	24.52	24.54	25.00
		12	0	23.49	23.53	23.50	24.00
		12	6	23.50	23.51	23.45	24.00
		12	13	23.58	23.52	23.48	24.00
		25	0	23.44	23.52	23.51	24.00
	16QAM	1	0	23.66	23.86	23.43	24.00
		1	13	23.66	23.82	23.42	24.00
		1	24	23.52	23.72	23.47	24.00
		12	0	22.44	22.47	22.61	23.00
		12	6	22.87	22.48	22.57	23.00
		12	13	22.90	22.51	22.55	23.00
		25	0	22.41	22.50	22.43	23.00
	64QAM	1	0	22.39	22.43	22.50	23.00
		1	13	22.39	22.42	22.41	23.00
		1	24	22.44	22.50	22.41	23.00
		12	0	21.64	21.48	21.42	22.00
		12	6	21.54	21.58	21.64	22.00
		12	13	21.51	21.51	21.55	22.00
		25	0	21.63	21.69	21.65	22.00
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				23780/709	23790/710	23800/711	
10MHz	QPSK	1	0	24.43	24.54	24.42	25.00
		1	25	24.60	24.48	24.54	25.00
		1	49	24.49	24.50	24.50	25.00
		25	0	23.47	23.49	23.47	24.00
		25	13	23.48	23.47	23.42	24.00
		25	25	23.54	23.48	23.45	24.00
		50	0	23.44	23.45	23.46	24.00
	16QAM	1	0	23.61	23.83	23.38	24.00
		1	25	23.63	23.81	23.39	24.00
		1	49	23.50	23.67	23.45	24.00
		25	0	22.41	22.46	22.59	23.00
		25	13	22.83	22.45	22.53	23.00
		25	25	22.88	22.47	22.52	23.00
		50	0	22.39	22.46	22.40	23.00
	64QAM	1	0	22.34	22.40	22.45	23.00
		1	25	22.36	22.41	22.38	23.00

		1	49	22.42	22.45	22.39	23.00
		25	0	21.61	21.47	21.40	22.00
		25	13	21.50	21.55	21.60	22.00
		25	25	21.49	21.47	21.52	22.00
		50	0	21.61	21.65	21.62	22.00

LTE FDD Band 26 (Receiver on)				Conducted Power(dBm)			Tune-up Limit
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			
				26697/814.7	26865/831.5	27033/848.3	
1.4MHz	QPSK	1	0	19.13	19.18	19.21	20.00
		1	2	19.16	19.19	19.23	20.00
		1	5	19.10	19.10	19.01	20.00
		3	0	19.16	19.21	19.03	20.00
		3	2	19.07	19.12	18.95	20.00
		3	3	18.15	19.15	19.24	20.00
		6	0	19.04	19.12	19.00	20.00
	16QAM	1	0	19.37	19.20	19.49	20.00
		1	2	19.38	19.67	19.49	20.00
		1	5	19.44	19.28	19.33	20.00
		3	0	19.03	19.09	18.99	20.00
		3	2	19.00	18.95	19.09	20.00
		3	3	19.08	19.02	18.91	20.00
		6	0	19.04	18.88	19.11	20.00
	64QAM	1	0	19.15	19.12	19.10	20.00
		1	2	18.88	18.80	19.01	20.00
		1	5	19.39	19.65	19.27	20.00
		3	0	19.22	19.13	19.06	20.00
		3	2	19.25	19.14	19.27	20.00
		3	3	19.22	19.29	19.23	20.00
		6	0	19.34	19.36	19.19	20.00
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				26705/815.5	26865/831.5	27025/847.5	
3MHz	QPSK	1	0	19.15	19.22	19.24	20.00
		1	7	19.16	19.21	19.27	20.00
		1	14	19.13	19.15	19.05	20.00
		8	0	19.20	19.28	19.10	20.00
		8	4	19.10	19.20	19.01	20.00
		8	7	18.19	19.20	19.28	20.00
		15	0	19.06	19.16	19.03	20.00
	16QAM	1	0	19.40	19.22	19.52	20.00
		1	7	19.41	19.69	19.53	20.00
		1	14	19.46	19.32	19.36	20.00

		8	0	19.08	19.13	19.02	20.00
		8	4	19.05	19.02	19.15	20.00
		8	7	19.12	19.08	18.98	20.00
		15	0	19.07	18.92	19.14	20.00
	64QAM	1	0	19.18	19.14	19.13	20.00
		1	7	18.91	18.82	19.05	20.00
		1	14	19.41	19.69	19.30	20.00
		8	0	19.27	19.17	19.09	20.00
		8	4	19.30	19.21	19.33	20.00
		8	7	19.26	19.35	19.30	20.00
15	0	19.36	19.42	19.24	20.00		
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				26715/816.5	26865/831.5	27015/846.5	
5MHz	QPSK	1	0	19.12	19.20	19.20	20.00
		1	13	19.14	19.17	19.24	20.00
		1	24	19.10	19.10	19.01	20.00
		12	0	19.17	19.23	19.06	20.00
		12	6	19.08	19.16	18.96	20.00
		12	13	18.17	19.18	19.24	20.00
		25	0	19.04	19.15	19.01	20.00
	16QAM	1	0	19.37	19.18	19.49	20.00
		1	13	19.38	19.67	19.50	20.00
		1	24	19.43	19.30	19.32	20.00
		12	0	19.06	19.09	18.99	20.00
		12	6	19.02	18.97	19.11	20.00
		12	13	19.09	19.03	18.94	20.00
		25	0	19.05	18.88	19.09	20.00
	64QAM	1	0	19.15	19.10	19.10	20.00
		1	13	18.88	18.80	19.02	20.00
		1	24	19.38	19.67	19.26	20.00
		12	0	19.25	19.13	19.06	20.00
		12	6	19.27	19.16	19.29	20.00
		12	13	19.23	19.30	19.26	20.00
		25	0	19.34	19.38	19.19	20.00
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				26750/820	26865/831.5	26990/844	
10MHz	QPSK	1	0	19.13	19.19	19.22	20.00
		1	25	19.15	19.21	19.26	20.00
		1	49	19.11	19.12	19.03	20.00
		25	0	19.18	19.27	19.08	20.00
		25	13	19.10	19.19	18.99	20.00
		25	25	18.17	19.18	19.28	20.00
		50	0	19.04	19.16	19.02	20.00

	16QAM	1	0	19.36	19.16	19.49	20.00
		1	25	19.40	19.70	19.48	20.00
		1	49	19.44	19.28	19.34	20.00
		25	0	19.04	19.13	19.00	20.00
		25	13	19.01	18.96	19.12	20.00
		25	25	19.11	19.07	18.93	20.00
		50	0	19.04	18.90	19.09	20.00
	64QAM	1	0	19.15	19.09	19.11	20.00
		1	25	18.90	18.82	19.02	20.00
		1	49	19.38	19.64	19.27	20.00
		25	0	19.27	19.17	19.05	20.00
		25	13	19.25	19.17	19.28	20.00
		25	25	19.24	19.31	19.29	20.00
		50	0	19.36	19.41	19.20	20.00
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				26775/822.5	26865/831.5	26965/841.5	
15MHz	QPSK	1	0	19.10	19.13	19.18	20.00
		1	38	19.14	19.17	19.23	20.00
		1	74	19.07	19.08	18.97	20.00
		36	0	19.15	19.19	19.03	20.00
		36	18	19.06	19.12	18.93	20.00
		36	39	18.13	19.14	19.21	20.00
		75	0	19.04	19.08	18.96	20.00
	16QAM	1	0	19.32	19.15	19.44	20.00
		1	38	19.35	19.66	19.47	20.00
		1	74	19.41	19.25	19.30	20.00
		36	0	19.03	19.08	18.97	20.00
		36	18	18.98	18.94	19.07	20.00
		36	39	19.07	18.99	18.91	20.00
		75	0	19.03	18.84	19.06	20.00
	64QAM	1	0	19.10	19.07	19.05	20.00
		1	38	18.85	18.79	18.99	20.00
		1	74	19.36	19.62	19.24	20.00
		36	0	19.22	19.12	19.04	20.00
		36	18	19.23	19.13	19.25	20.00
		36	39	19.21	19.26	19.23	20.00
		75	0	19.32	19.34	19.16	20.00

LTE FDD Band 26 (Receiver off)				Conducted Power(dBm)			Tune-up Limit
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			
				26697/814.7	26865/831.5	27033/848.3	
1.4MHz	QPSK	1	0	24.35	24.45	24.23	25.00

		1	2	24.41	24.50	24.24	25.00
		1	5	24.20	24.11	24.31	25.00
		3	0	23.49	23.30	23.37	25.00
		3	2	23.25	23.36	23.32	25.00
		3	3	23.36	23.40	23.38	25.00
		6	0	23.40	23.42	23.26	24.00
	16QAM	1	0	23.49	23.47	23.29	24.00
		1	2	23.44	23.33	23.32	24.00
		1	5	23.40	23.21	23.34	24.00
		3	0	22.29	22.26	22.51	24.00
		3	2	22.14	22.18	22.26	24.00
		3	3	22.19	22.23	22.23	24.00
	64QAM	6	0	22.28	22.23	22.26	23.00
		1	0	22.45	22.46	22.50	23.00
		1	2	22.38	22.40	22.39	23.00
		1	5	22.35	22.39	22.38	23.00
		3	0	21.39	21.44	21.43	23.00
		3	2	21.43	21.51	21.48	23.00
		3	3	21.44	21.54	21.53	23.00
	6	0	21.51	21.56	21.58	22.00	
	Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)		
26705/815.5					26865/831.5	27025/847.5	
3MHz	QPSK	1	0	24.37	24.49	24.26	25.00
		1	7	24.41	24.52	24.28	25.00
		1	14	24.23	24.16	24.35	25.00
		8	0	23.53	23.37	23.44	24.00
		8	4	23.28	23.44	23.38	24.00
		8	7	23.40	23.45	23.42	24.00
		15	0	23.42	23.46	23.29	24.00
	16QAM	1	0	23.52	23.49	23.32	24.00
		1	7	23.47	23.35	23.36	24.00
		1	14	23.42	23.25	23.37	24.00
		8	0	22.34	22.30	22.54	23.00
		8	4	22.19	22.25	22.32	23.00
		8	7	22.23	22.29	22.30	23.00
		15	0	22.31	22.27	22.29	23.00
	64QAM	1	0	22.48	22.48	22.53	23.00
		1	7	22.41	22.42	22.43	23.00
		1	14	22.37	22.43	22.41	23.00
		8	0	21.44	21.48	21.46	22.00
		8	4	21.48	21.58	21.54	22.00
		8	7	21.48	21.60	21.60	22.00
		15	0	21.53	21.62	21.63	22.00

Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				26715/816.5	26865/831.5	27015/846.5	
5MHz	QPSK	1	0	24.34	24.47	24.22	25.00
		1	13	24.39	24.48	24.25	25.00
		1	24	24.20	24.11	24.31	25.00
		12	0	23.50	23.32	23.40	24.00
		12	6	23.26	23.40	23.33	24.00
		12	13	23.38	23.43	23.38	24.00
		25	0	23.40	23.45	23.27	24.00
	16QAM	1	0	23.49	23.45	23.29	24.00
		1	13	23.44	23.33	23.33	24.00
		1	24	23.39	23.23	23.33	24.00
		12	0	22.32	22.26	22.51	23.00
		12	6	22.16	22.20	22.28	23.00
		12	13	22.20	22.24	22.26	23.00
		25	0	22.29	22.23	22.24	23.00
	64QAM	1	0	22.45	22.44	22.50	23.00
		1	13	22.38	22.40	22.40	23.00
		1	24	22.34	22.41	22.37	23.00
		12	0	21.42	21.44	21.43	22.00
		12	6	21.45	21.53	21.50	22.00
		12	13	21.45	21.55	21.56	22.00
		25	0	21.51	21.58	21.58	22.00
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				26750/820	26865/831.5	26990/844	
10MHz	QPSK	1	0	24.35	24.46	24.24	25.00
		1	25	24.40	24.52	24.27	25.00
		1	49	24.21	24.13	24.33	25.00
		25	0	23.51	23.36	23.42	24.00
		25	13	23.28	23.43	23.36	24.00
		25	25	23.38	23.43	23.42	24.00
		50	0	23.40	23.46	23.28	24.00
	16QAM	1	0	23.48	23.43	23.29	24.00
		1	25	23.46	23.36	23.31	24.00
		1	49	23.40	23.21	23.35	24.00
		25	0	22.30	22.30	22.52	23.00
		25	13	22.15	22.19	22.29	23.00
		25	25	22.22	22.28	22.25	23.00
		50	0	22.28	22.25	22.24	23.00
	64QAM	1	0	22.45	22.43	22.51	23.00
		1	25	22.40	22.42	22.40	23.00
		1	49	22.34	22.38	22.38	23.00
		25	0	21.44	21.48	21.42	22.00

Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				26775/822.5	26865/831.5	26965/841.5	
15MHz	QPSK	25	13	21.43	21.54	21.49	22.00
		25	25	21.46	21.56	21.59	22.00
		50	0	21.53	21.61	21.59	22.00
		1	0	24.32	24.40	24.20	25.00
		1	38	24.39	24.48	24.24	25.00
		1	74	24.17	24.09	24.27	25.00
		36	0	23.48	23.28	23.37	24.00
	36	18	23.24	23.36	23.30	24.00	
	36	39	23.34	23.39	23.35	24.00	
	75	0	23.40	23.38	23.22	24.00	
	16QAM	1	0	23.44	23.42	23.24	24.00
		1	38	23.41	23.32	23.30	24.00
		1	74	23.37	23.18	23.31	24.00
		36	0	22.29	22.25	22.49	23.00
		36	18	22.12	22.17	22.24	23.00
		36	39	22.18	22.20	22.23	23.00
		75	0	22.27	22.19	22.21	23.00
	64QAM	1	0	22.40	22.41	22.45	23.00
		1	38	22.35	22.39	22.37	23.00
		1	74	22.32	22.36	22.35	23.00
		36	0	21.39	21.43	21.41	22.00
36		18	21.41	21.50	21.46	22.00	
36		39	21.43	21.51	21.53	22.00	
75		0	21.49	21.54	21.55	22.00	

LTE TDD Band 38 (Receiver on)				Conducted Power(dBm)			Tune-up Limit
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			
				37775/2572.5	38000/2595	38225/2617.5	
5MHz	QPSK	1	0	17.34	17.35	17.19	18.13
		1	13	17.37	17.26	17.26	18.13
		1	24	17.34	17.40	17.38	18.13
		12	0	17.31	17.10	17.13	18.13
		12	6	17.28	17.06	17.23	18.13
		12	13	17.36	17.22	17.24	18.13
		25	0	17.25	17.34	17.27	18.13
	16QAM	1	0	17.74	17.76	17.71	18.13
		1	13	17.61	17.50	17.46	18.13
		1	24	17.86	17.79	17.64	18.13
		12	0	17.29	17.08	17.00	18.13
		12	6	17.15	17.07	17.16	18.13

		12	13	17.22	17.09	17.12	18.13
		25	0	17.20	17.22	17.22	18.13
	64QAM	1	0	17.74	17.74	17.71	18.13
		1	13	17.56	17.50	17.48	18.13
		1	24	17.80	17.75	17.64	18.13
		12	0	17.38	17.42	17.31	18.13
		12	6	17.42	17.35	17.34	18.13
		12	13	17.31	17.45	17.38	18.13
		25	0	17.54	17.52	17.53	18.13
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				37800/2575	38000/2595	38200/2615	
10MHz	QPSK	1	0	17.35	17.34	17.21	18.13
		1	25	17.38	17.30	17.28	18.13
		1	49	17.35	17.42	17.40	18.13
		25	0	17.32	17.14	17.15	18.13
		25	13	17.30	17.09	17.26	18.13
		25	25	17.36	17.22	17.28	18.13
		50	0	17.25	17.35	17.28	18.13
	16QAM	1	0	17.73	17.74	17.71	18.13
		1	25	17.63	17.53	17.44	18.13
		1	49	17.87	17.77	17.66	18.13
		25	0	17.27	17.12	17.01	18.13
		25	13	17.14	17.06	17.17	18.13
		25	25	17.24	17.13	17.11	18.13
		50	0	17.19	17.24	17.22	18.13
	64QAM	1	0	17.74	17.73	17.72	18.13
		1	25	17.58	17.52	17.48	18.13
		1	49	17.80	17.72	17.65	18.13
		25	0	17.40	17.46	17.30	18.13
		25	13	17.40	17.36	17.33	18.13
		25	25	17.32	17.46	17.41	18.13
		50	0	17.56	17.55	17.54	18.13
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				37825/2577.5	38000/2595	38175/2612.5	
15MHz	QPSK	1	0	17.35	17.32	17.20	18.13
		1	38	17.38	17.30	17.27	18.13
		1	74	17.33	17.39	17.37	18.13
		36	0	17.32	17.11	17.14	18.13
		36	18	17.28	17.06	17.23	18.13
		36	39	17.35	17.23	17.25	18.13
		75	0	17.28	17.32	17.26	18.13
	16QAM	1	0	17.71	17.77	17.71	18.13
		1	38	17.62	17.51	17.47	18.13

		1	74	17.86	17.77	17.64	18.13
		36	0	17.29	17.11	17.01	18.13
		36	18	17.14	17.06	17.15	18.13
		36	39	17.23	17.10	17.13	18.13
		75	0	17.20	17.22	17.22	18.13
	64QAM	1	0	17.71	17.75	17.71	18.13
		1	38	17.57	17.51	17.49	18.13
		1	74	17.80	17.73	17.64	18.13
		36	0	17.38	17.45	17.32	18.13
		36	18	17.41	17.34	17.33	18.13
		36	39	17.32	17.46	17.39	18.13
		75	0	17.54	17.52	17.53	18.13
		Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)	
				37850/2580	38000/2595	38150/2610	
20MHz	QPSK	1	0	17.32	17.28	17.17	18.13
		1	50	17.37	17.26	17.25	18.13
		1	99	17.31	17.38	17.34	18.13
		50	0	17.29	17.06	17.10	18.13
		50	25	17.26	17.02	17.20	18.13
		50	50	17.32	17.18	17.21	18.13
		100	0	17.25	17.27	17.22	18.13
	16QAM	1	0	17.69	17.73	17.66	18.13
		1	50	17.58	17.49	17.43	18.13
		1	99	17.84	17.74	17.62	18.13
		50	0	17.26	17.07	16.98	18.13
		50	25	17.11	17.04	17.12	18.13
		50	50	17.20	17.05	17.09	18.13
		100	0	17.18	17.18	17.19	18.13
	64QAM	1	0	17.69	17.71	17.66	18.13
		1	50	17.53	17.49	17.45	18.13
		1	99	17.78	17.70	17.62	18.13
		50	0	17.35	17.41	17.29	18.13
		50	25	17.38	17.32	17.30	18.13
		50	50	17.29	17.41	17.35	18.13
		100	0	17.52	17.48	17.50	18.13

LTE TDD Band 38 (Receiver off)				Conducted Power(dBm)			Tune-up Limit
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			
				37775/2572.5	38000/2595	38225/2617.5	
5MHz	QPSK	1	0	22.02	22.02	21.88	22.63
		1	13	21.86	21.94	21.86	22.63
		1	24	22.00	21.94	22.02	22.63

		12	0	21.01	21.06	20.76	21.63	
		12	6	20.92	20.99	20.85	21.63	
		12	13	20.97	20.90	20.95	21.63	
		25	0	20.90	20.98	20.75	21.63	
	16QAM	1	0	21.15	21.20	21.03	21.63	
		1	13	21.07	21.03	21.03	21.63	
		1	24	21.10	21.25	21.16	21.63	
		12	0	19.88	19.68	19.70	20.63	
		12	6	19.87	19.63	19.81	20.63	
		12	13	19.82	19.86	19.79	20.63	
		25	0	19.81	19.91	19.69	20.63	
		64QAM	1	0	20.32	20.47	20.36	20.63
	1		13	20.13	19.57	20.20	20.63	
	1		24	20.19	19.76	20.22	20.63	
	12		0	19.17	19.02	18.96	19.63	
	12		6	19.09	18.96	19.15	19.63	
	12		13	19.15	19.19	19.12	19.63	
	25		0	19.16	19.22	19.00	19.63	
	Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
					37800/2575	38000/2595	38200/2615	
	10MHz	QPSK	1	0	22.03	22.01	21.90	22.63
1			25	21.87	21.98	21.88	22.63	
1			49	22.01	21.96	22.04	22.63	
25			0	21.02	21.10	20.78	21.63	
25			13	20.94	21.02	20.88	21.63	
25			25	20.97	20.90	20.99	21.63	
50			0	20.90	20.99	20.76	21.63	
16QAM		1	0	21.14	21.18	21.03	21.63	
		1	25	21.09	21.06	21.01	21.63	
		1	49	21.11	21.23	21.18	21.63	
		25	0	19.86	19.72	19.71	20.63	
		25	13	19.86	19.62	19.82	20.63	
		25	25	19.84	19.90	19.78	20.63	
		50	0	19.80	19.93	19.69	20.63	
64QAM		1	0	20.32	20.46	20.47	20.63	
		1	25	20.15	19.59	20.20	20.63	
		1	49	20.19	19.73	20.23	20.63	
		25	0	19.19	19.06	18.95	19.63	
		25	13	19.07	18.97	19.14	19.63	
		25	25	19.16	19.20	19.15	19.63	
		50	0	19.18	19.25	19.01	19.63	

Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				37825/2577.5	38000/2595	38175/2612.5	
15MHz	QPSK	1	0	22.03	21.99	21.89	22.63
		1	38	21.87	21.98	21.87	22.63
		1	74	21.99	21.93	22.01	22.63
		36	0	21.02	21.07	20.77	21.63
		36	18	20.92	20.99	20.85	21.63
		36	39	20.96	20.91	20.96	21.63
		75	0	20.93	20.96	20.74	21.63
	16QAM	1	0	21.12	21.21	21.03	21.63
		1	38	21.08	21.04	21.04	21.63
		1	74	21.10	21.23	21.16	21.63
		36	0	19.88	19.71	19.71	20.63
		36	18	19.86	19.62	19.80	20.63
		36	39	19.83	19.87	19.80	20.63
		75	0	19.81	19.91	19.69	20.63
	64QAM	1	0	20.29	20.48	20.46	20.63
		1	38	20.14	19.58	20.21	20.63
		1	74	20.19	19.74	20.22	20.63
		36	0	19.17	19.05	18.97	19.63
		36	18	19.08	18.95	19.14	19.63
		36	39	19.16	19.20	19.13	19.63
		75	0	19.16	19.22	19.00	19.63
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				37850/2580	38000/2595	38150/2610	
20MHz	QPSK	1	0	22.00	21.95	21.86	22.63
		1	50	21.86	21.94	21.85	22.63
		1	99	21.97	21.92	21.98	22.63
		50	0	20.99	21.02	20.73	21.63
		50	25	20.90	20.95	20.82	21.63
		50	50	20.93	20.86	20.92	21.63
		100	0	20.90	20.91	20.70	21.63
	16QAM	1	0	21.10	21.17	20.98	21.63
		1	50	21.04	21.02	21.00	21.63
		1	99	21.08	21.20	21.14	21.63
		50	0	19.85	19.67	19.68	20.63
		50	25	19.83	19.60	19.77	20.63
		50	50	19.80	19.82	19.76	20.63
		100	0	19.79	19.87	19.66	20.63
	64QAM	1	0	20.27	20.44	20.41	20.63
		1	50	20.10	19.56	20.17	20.63
		1	99	20.17	19.71	20.20	20.63
		50	0	19.14	19.01	18.94	19.63

		50	25	19.05	18.93	19.11	19.63
		50	50	19.13	19.15	19.09	19.63
		100	0	19.14	19.18	18.97	19.63

LTE TDD Band 41 (Receiver on)				Conducted Power(dBm)			Tune-up Limit
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			
				40148/2545.8	40620/2593	41093/2640.3	
5MHz	QPSK	1	0	17.16	16.73	16.54	18.13
		1	13	17.15	16.87	16.69	18.13
		1	24	17.12	16.76	16.74	18.13
		12	0	17.10	16.59	16.43	18.13
		12	6	17.06	16.62	16.66	18.13
		12	13	17.13	16.74	16.57	18.13
		25	0	17.07	16.59	16.55	18.13
	16QAM	1	0	17.49	17.13	16.59	18.13
		1	13	17.40	17.06	16.75	18.13
		1	24	17.54	17.04	16.64	18.13
		12	0	16.90	16.57	16.57	18.13
		12	6	16.81	16.66	16.47	18.13
		12	13	16.90	16.75	16.61	18.13
		25	0	16.88	16.71	16.62	18.13
	64QAM	1	0	17.20	17.13	17.14	18.13
		1	13	17.33	17.01	17.36	18.13
		1	24	17.34	17.20	17.28	18.13
		12	0	17.21	17.27	17.29	18.13
		12	6	17.24	17.38	17.24	18.13
		12	13	17.23	17.37	17.18	18.13
		25	0	17.34	17.10	17.25	18.13
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				40160/2547	40620/2593	41080/2639	
10MHz	QPSK	1	0	17.17	16.72	16.56	18.13
		1	25	17.16	16.91	16.71	18.13
		1	49	17.13	16.78	16.76	18.13
		25	0	17.11	16.63	16.45	18.13
		25	13	17.08	16.65	16.69	18.13
		25	25	17.13	16.74	16.61	18.13
		50	0	17.07	16.60	16.56	18.13
	16QAM	1	0	17.48	17.11	16.59	18.13
		1	25	17.42	17.09	16.73	18.13
		1	49	17.55	17.02	16.66	18.13
		25	0	16.88	16.61	16.58	18.13
		25	13	16.80	16.65	16.48	18.13

		25	25	16.92	16.79	16.60	18.13
		50	0	16.87	16.73	16.62	18.13
	64QAM	1	0	17.20	17.12	17.15	18.13
		1	25	17.35	17.03	17.36	18.13
		1	49	17.34	17.17	17.29	18.13
		25	0	17.23	17.31	17.28	18.13
		25	13	17.22	17.39	17.23	18.13
		25	25	17.24	17.38	17.21	18.13
		50	0	17.36	17.13	17.26	18.13
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				40173/2548.3	40620/2593	41068/2637.8	
15MHz	QPSK	1	0	17.17	16.70	16.55	18.13
		1	38	17.16	16.91	16.70	18.13
		1	74	17.11	16.75	16.73	18.13
		36	0	17.11	16.60	16.44	18.13
		36	18	17.06	16.62	16.66	18.13
		36	39	17.12	16.75	16.58	18.13
		75	0	17.10	16.57	16.54	18.13
	16QAM	1	0	17.46	17.14	16.59	18.13
		1	38	17.41	17.07	16.76	18.13
		1	74	17.54	17.02	16.64	18.13
		36	0	16.90	16.60	16.58	18.13
		36	18	16.80	16.65	16.46	18.13
		36	39	16.91	16.76	16.62	18.13
		75	0	16.88	16.71	16.62	18.13
	64QAM	1	0	17.17	17.14	17.14	18.13
		1	38	17.34	17.02	17.37	18.13
		1	74	17.34	17.18	17.28	18.13
		36	0	17.21	17.30	17.30	18.13
		36	18	17.23	17.37	17.23	18.13
		36	39	17.24	17.38	17.19	18.13
		75	0	17.34	17.10	17.25	18.13
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				40185/2549.5	40620/2593	41055/2636.5	
20MHz	QPSK	1	0	17.14	16.66	16.52	18.13
		1	50	17.15	16.87	16.68	18.13
		1	99	17.09	16.74	16.70	18.13
		50	0	17.08	16.55	16.40	18.13
		50	25	17.04	16.58	16.63	18.13
		50	50	17.09	16.70	16.54	18.13
		100	0	17.07	16.52	16.50	18.13
	16QAM	1	0	17.44	17.10	16.54	18.13
		1	50	17.37	17.05	16.72	18.13

		1	99	17.52	16.99	16.62	18.13
		50	0	16.87	16.56	16.55	18.13
		50	25	16.77	16.63	16.43	18.13
		50	50	16.88	16.71	16.58	18.13
		100	0	16.86	16.67	16.59	18.13
	64QAM	1	0	17.15	17.10	17.09	18.13
		1	50	17.30	17.00	17.33	18.13
		1	99	17.32	17.15	17.26	18.13
		50	0	17.18	17.26	17.27	18.13
		50	25	17.20	17.35	17.20	18.13
		50	50	17.21	17.33	17.15	18.13
		100	0	17.32	17.06	17.22	18.13

LTE TDD Band 41 (Receiver off)				Conducted Power(dBm)			Tune-up Limit
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			
				40148/2545.8	40620/2593	41093/2640.3	
5MHz	QPSK	1	0	22.21	21.96	22.02	23.13
		1	13	22.28	22.11	21.86	23.13
		1	24	22.26	21.94	22.01	23.13
		12	0	21.20	21.14	20.93	22.13
		12	6	21.19	21.08	20.87	22.13
		12	13	21.30	21.11	20.92	22.13
		25	0	21.22	21.13	20.90	22.13
	16QAM	1	0	21.37	21.33	21.11	22.13
		1	13	21.36	21.06	21.04	22.13
		1	24	21.40	21.09	21.12	22.13
		12	0	20.08	19.95	19.88	21.13
		12	6	20.19	19.93	19.83	21.13
		12	13	20.14	19.87	19.89	21.13
		25	0	20.18	19.98	20.59	21.13
	64QAM	1	0	20.50	20.46	20.56	21.13
		1	13	20.36	20.48	20.52	21.13
		1	24	20.31	20.31	20.53	21.13
		12	0	20.10	19.98	19.91	20.13
		12	6	19.81	19.85	19.89	20.13
		12	13	19.86	19.91	19.91	20.13
		25	0	19.71	19.75	19.88	20.13
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
10MHz	QPSK	1	0	40160/2547	40620/2593	41080/2639	23.13
		1	25	22.22	21.95	22.04	23.13
		1	49	22.29	22.15	21.88	23.13
				22.27	21.96	22.03	23.13

		25	0	21.21	21.18	20.95	22.13	
		25	13	21.21	21.11	20.90	22.13	
		25	25	21.30	21.11	20.96	22.13	
		50	0	21.22	21.14	20.91	22.13	
	16QAM	1	0	21.36	21.31	21.11	22.13	
		1	25	21.38	21.09	21.02	22.13	
		1	49	21.41	21.07	21.14	22.13	
		25	0	20.06	19.99	19.89	21.13	
		25	13	20.18	19.92	19.84	21.13	
		25	25	20.16	19.91	19.88	21.13	
		50	0	20.17	20.00	20.59	21.13	
		64QAM	1	0	20.50	20.45	20.57	21.13
	1		25	20.38	20.50	20.52	21.13	
	1		49	20.31	20.28	20.54	21.13	
	25		0	20.12	20.02	19.90	20.13	
	25		13	19.79	19.86	19.88	20.13	
	25		25	19.87	19.92	19.94	20.13	
	50		0	19.73	19.78	19.89	20.13	
	Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
					40173/2548.3	40620/2593	41068/2637.8	
	15MHz	QPSK	1	0	22.22	21.93	22.03	23.13
1			38	22.29	22.15	21.87	23.13	
1			74	22.25	21.93	22.00	23.13	
36			0	21.21	21.15	20.94	22.13	
36			18	21.19	21.08	20.87	22.13	
36			39	21.29	21.12	20.93	22.13	
75			0	21.25	21.11	20.89	22.13	
16QAM		1	0	21.34	21.34	21.11	22.13	
		1	38	21.37	21.07	21.05	22.13	
		1	74	21.40	21.07	21.12	22.13	
		36	0	20.08	19.98	19.89	21.13	
		36	18	20.18	19.92	19.82	21.13	
		36	39	20.15	19.88	19.90	21.13	
		75	0	20.18	19.98	20.59	21.13	
64QAM		1	0	20.47	20.47	20.56	21.13	
		1	38	20.37	20.49	20.53	21.13	
		1	74	20.31	20.29	20.53	21.13	
		36	0	20.10	20.01	19.92	20.13	
		36	18	19.80	19.84	19.88	20.13	
		36	39	19.87	19.92	19.92	20.13	
		75	0	19.71	19.75	19.88	20.13	

Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				40185/2549.5	40620/2593	41055/2636.5	
20MHz	QPSK	1	0	22.19	21.89	22.00	23.13
		1	50	22.28	22.11	21.85	23.13
		1	99	22.23	21.92	21.97	23.13
		50	0	21.18	21.10	20.90	22.13
		50	25	21.17	21.04	20.84	22.13
		50	50	21.26	21.07	20.89	22.13
		100	0	21.22	21.06	20.85	22.13
	16QAM	1	0	21.32	21.30	21.06	22.13
		1	50	21.33	21.05	21.01	22.13
		1	99	21.38	21.04	21.10	22.13
		50	0	20.05	19.94	19.86	21.13
		50	25	20.15	19.90	19.79	21.13
		50	50	20.12	19.83	19.86	21.13
		100	0	20.16	19.94	20.56	21.13
	64QAM	1	0	20.45	20.43	20.51	21.13
		1	50	20.33	20.47	20.49	21.13
		1	99	20.29	20.26	20.51	21.13
		50	0	20.07	19.97	19.89	20.13
		50	25	19.77	19.82	19.85	20.13
		50	50	19.84	19.87	19.88	20.13
		100	0	19.69	19.71	19.85	20.13

LTE FDD Band 66 (Receiver on)				Conducted Power(dBm)			Tune-up Limit
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			
				131979/1710.7	132322/1745	132665/1779.3	
1.4MHz	QPSK	1	0	16.73	16.53	16.37	17.50
		1	2	16.74	16.53	16.44	17.50
		1	5	16.78	16.55	16.49	17.50
		3	0	16.67	16.64	16.32	17.50
		3	2	16.69	16.60	16.36	17.50
		3	3	16.75	16.54	16.39	17.50
		6	0	16.77	16.64	16.39	17.50
	16QAM	1	0	16.76	16.70	16.32	17.50
		1	2	16.68	16.69	16.30	17.50
		1	5	16.73	16.66	16.32	17.50
		3	0	16.65	16.73	16.27	17.50
		3	2	16.59	16.48	16.28	17.50
		3	3	16.62	16.58	16.23	17.50
		6	0	16.68	16.56	16.29	17.50
	64QAM	1	0	16.60	16.48	16.54	17.50

		1	2	16.47	16.59	16.34	17.50
		1	5	16.59	16.43	16.32	17.50
		3	0	16.23	16.19	16.17	17.50
		3	2	16.22	16.17	16.12	17.50
		3	3	16.34	16.23	16.08	17.50
		6	0	16.20	16.13	16.15	17.50
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				1319871711.5	132322/1745	132657/1778.5	
3MHz	QPSK	1	0	16.75	16.57	16.40	17.50
		1	7	16.74	16.55	16.48	17.50
		1	14	16.81	16.60	16.53	17.50
		8	0	16.71	16.71	16.39	17.50
		8	4	16.72	16.68	16.42	17.50
		8	7	16.79	16.59	16.43	17.50
		15	0	16.79	16.68	16.42	17.50
	16QAM	1	0	16.79	16.72	16.35	17.50
		1	7	16.71	16.71	16.34	17.50
		1	14	16.75	16.70	16.35	17.50
		8	0	16.70	16.77	16.30	17.50
		8	4	16.64	16.55	16.34	17.50
		8	7	16.66	16.64	16.30	17.50
		15	0	16.71	16.60	16.32	17.50
	64QAM	1	0	16.63	16.50	16.57	17.50
		1	7	16.50	16.61	16.38	17.50
		1	14	16.61	16.47	16.35	17.50
		8	0	16.28	16.23	16.20	17.50
		8	4	16.27	16.24	16.18	17.50
		8	7	16.38	16.29	16.15	17.50
		15	0	16.22	16.19	16.20	17.50
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				131997/1712.5	132322/1745	132647/1777.5	
5MHz	QPSK	1	0	16.72	16.55	16.36	17.50
		1	13	16.72	16.51	16.45	17.50
		1	24	16.78	16.55	16.49	17.50
		12	0	16.68	16.66	16.35	17.50
		12	6	16.70	16.64	16.37	17.50
		12	13	16.77	16.57	16.39	17.50
		25	0	16.77	16.67	16.40	17.50
	16QAM	1	0	16.76	16.68	16.32	17.50
		1	13	16.68	16.69	16.31	17.50
		1	24	16.72	16.68	16.31	17.50
		12	0	16.68	16.73	16.27	17.50
		12	6	16.61	16.50	16.30	17.50

Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit	
				132022/1715	132322/1745	132622/1775		
	64QAM	12	13	16.63	16.59	16.26	17.50	
		25	0	16.69	16.56	16.27	17.50	
		1	0	16.60	16.46	16.54	17.50	
		1	13	16.47	16.59	16.35	17.50	
		1	24	16.58	16.45	16.31	17.50	
		12	0	16.26	16.19	16.17	17.50	
		12	6	16.24	16.19	16.14	17.50	
		12	13	16.35	16.24	16.11	17.50	
		25	0	16.20	16.15	16.15	17.50	
10MHz	QPSK	1	0	16.73	16.54	16.38	17.50	
		1	25	16.73	16.55	16.47	17.50	
		1	49	16.79	16.57	16.51	17.50	
		25	0	16.69	16.70	16.37	17.50	
		25	13	16.72	16.67	16.40	17.50	
		25	25	16.77	16.57	16.43	17.50	
		50	0	16.77	16.68	16.41	17.50	
	16QAM	1	0	16.75	16.66	16.32	17.50	
		1	25	16.70	16.72	16.29	17.50	
		1	49	16.73	16.66	16.33	17.50	
		25	0	16.66	16.77	16.28	17.50	
		25	13	16.60	16.49	16.31	17.50	
		25	25	16.65	16.63	16.25	17.50	
		50	0	16.68	16.58	16.27	17.50	
	64QAM	1	0	16.60	16.45	16.55	17.50	
		1	25	16.49	16.61	16.35	17.50	
		1	49	16.58	16.42	16.32	17.50	
		25	0	16.28	16.23	16.16	17.50	
		25	13	16.22	16.20	16.13	17.50	
		25	25	16.36	16.25	16.14	17.50	
		50	0	16.22	16.18	16.16	17.50	
	Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
					132047/1717.5	132322/1745	132597/1772.5	
	15MHz	QPSK	1	0	16.73	16.52	16.37	17.50
1			38	16.73	16.55	16.46	17.50	
1			74	16.77	16.54	16.48	17.50	
36			0	16.69	16.67	16.36	17.50	
36			18	16.70	16.64	16.37	17.50	
36			39	16.76	16.58	16.40	17.50	
75			0	16.80	16.65	16.39	17.50	
16QAM		1	0	16.73	16.69	16.32	17.50	
		1	38	16.69	16.70	16.32	17.50	

Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit	
				132072/1720	132322/1745	132572/1770		
20MHz	64QAM	1	74	16.72	16.66	16.31	17.50	
		36	0	16.68	16.76	16.28	17.50	
		36	18	16.60	16.49	16.29	17.50	
		36	39	16.64	16.60	16.27	17.50	
		75	0	16.69	16.56	16.27	17.50	
		1	0	16.57	16.47	16.54	17.50	
		1	38	16.48	16.60	16.36	17.50	
	QPSK	1	99	16.75	16.53	16.45	17.50	
		50	0	16.66	16.62	16.32	17.50	
		50	25	16.68	16.60	16.34	17.50	
		50	50	16.73	16.53	16.36	17.50	
		100	0	16.77	16.60	16.35	17.50	
		16QAM	1	0	16.71	16.65	16.27	17.50
			1	50	16.65	16.68	16.28	17.50
1	99		16.70	16.63	16.29	17.50		
50	0		16.65	16.72	16.25	17.50		
50	25		16.57	16.47	16.26	17.50		
50	50		16.61	16.55	16.23	17.50		
100	0		16.67	16.52	16.24	17.50		
64QAM	1	0	16.55	16.43	16.49	17.50		
	1	50	16.44	16.58	16.32	17.50		
	1	99	16.56	16.40	16.29	17.50		
	50	0	16.23	16.18	16.15	17.50		
	50	25	16.20	16.16	16.10	17.50		
	50	50	16.33	16.20	16.08	17.50		
	100	0	16.18	16.11	16.12	17.50		

LTE FDD Band 66 (Receiver off)				Conducted Power(dBm)			Tune-up Limit
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			
				131979/1710.7	132322/1745	132665/1779.3	
1.4MHz	QPSK	1	0	21.75	21.59	21.32	22.50
		1	2	21.77	21.70	21.30	22.50
		1	5	21.76	21.54	21.27	22.50

		3	0	20.86	20.68	20.53	22.50	
		3	2	20.73	20.58	20.51	22.50	
		3	3	20.73	20.58	20.52	22.50	
		6	0	20.69	20.62	20.35	21.50	
	16QAM	1	0	20.71	20.66	20.73	21.50	
		1	2	20.62	20.58	20.50	21.50	
		1	5	20.60	20.54	20.52	21.50	
		3	0	19.59	19.60	19.55	21.50	
		3	2	19.66	19.55	19.59	21.50	
		3	3	19.64	19.58	19.51	21.50	
		6	0	19.83	19.89	19.94	20.50	
	64QAM	1	0	19.81	19.83	19.79	20.50	
		1	2	19.78	19.70	19.72	20.50	
		1	5	19.85	19.80	19.86	20.50	
		3	0	18.79	18.81	18.89	20.50	
		3	2	18.71	18.85	18.72	20.50	
		3	3	18.77	18.80	18.75	20.50	
		6	0	18.94	19.97	18.92	19.50	
	Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
					1319871711.5	132322/1745	132657/1778.5	
	3MHz	QPSK	1	0	21.77	21.63	21.35	22.50
1			7	21.77	21.72	21.34	22.50	
1			14	21.79	21.59	21.31	22.50	
8			0	20.90	20.75	20.40	21.50	
8			4	20.76	20.66	20.37	21.50	
8			7	20.77	20.63	20.37	21.50	
15			0	20.71	20.66	20.38	21.50	
16QAM		1	0	20.74	20.68	20.76	21.50	
		1	7	20.65	20.60	20.54	21.50	
		1	14	20.62	20.58	20.55	21.50	
		8	0	19.54	19.64	19.28	20.50	
		8	4	19.71	19.62	19.35	20.50	
		8	7	19.68	19.64	19.38	20.50	
		15	0	19.86	19.93	19.97	20.50	
64QAM		1	0	19.84	19.85	19.82	20.50	
		1	7	19.81	19.72	19.76	20.50	
		1	14	19.87	19.84	19.89	20.50	
		8	0	18.84	18.85	18.92	19.50	
		8	4	18.76	18.92	18.78	19.50	
		8	7	18.81	18.86	18.82	19.50	
		15	0	18.96	19.02	18.97	19.50	

Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				131997/1712.5	132322/1745	132647/1777.5	
5MHz	QPSK	1	0	21.74	21.61	21.31	22.50
		1	13	21.75	21.68	21.31	22.50
		1	24	21.76	21.54	21.27	22.50
		12	0	20.87	20.70	20.36	21.50
		12	6	20.74	20.62	20.32	21.50
		12	13	20.75	20.61	20.33	21.50
		25	0	20.69	20.65	20.36	21.50
	16QAM	1	0	20.71	20.64	20.73	21.50
		1	13	20.62	20.58	20.51	21.50
		1	24	20.59	20.56	20.51	21.50
		12	0	19.52	19.60	19.25	20.50
		12	6	19.68	19.57	19.31	20.50
		12	13	19.65	19.59	19.34	20.50
		25	0	19.84	19.89	19.92	20.50
	64QAM	1	0	19.81	19.81	19.79	20.50
		1	13	19.78	19.70	19.73	20.50
		1	24	19.84	19.82	19.85	20.50
		12	0	18.82	18.81	18.89	19.50
		12	6	18.73	18.87	18.74	19.50
		12	13	18.78	18.81	18.78	19.50
		25	0	18.94	18.99	18.92	19.50
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				132022/1715	132322/1745	132622/1775	
10MHz	QPSK	1	0	21.75	21.60	21.33	22.50
		1	25	21.76	21.72	21.33	22.50
		1	49	21.77	21.56	21.29	22.50
		25	0	20.88	20.74	20.38	21.50
		25	13	20.76	20.65	20.35	21.50
		25	25	20.75	20.61	20.37	21.50
		50	0	20.69	20.66	20.37	21.50
	16QAM	1	0	20.70	20.62	20.73	21.50
		1	25	20.64	20.61	20.49	21.50
		1	49	20.60	20.54	20.53	21.50
		25	0	19.50	19.64	19.26	20.50
		25	13	19.67	19.56	19.32	20.50
		25	25	19.67	19.63	19.33	20.50
		50	0	19.83	19.91	19.92	20.50
	64QAM	1	0	19.81	19.80	19.80	20.50
		1	25	19.80	19.72	19.73	20.50
		1	49	19.84	19.79	19.86	20.50
		25	0	18.84	18.85	18.88	19.50

Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit	
				132047/1717.5	132322/1745	132597/1772.5		
15MHz	QPSK	25	13	18.71	18.88	18.73	19.50	
		25	25	18.79	18.82	18.81	19.50	
		50	0	18.96	19.04	18.93	19.50	
		1	0	21.75	21.58	21.32	22.50	
		1	38	21.76	21.72	21.32	22.50	
		1	74	21.75	21.53	21.26	22.50	
		36	0	20.88	20.71	20.37	21.50	
	36	18	20.74	20.62	20.32	21.50		
	36	39	20.74	20.62	20.34	21.50		
	75	0	20.72	20.63	20.35	21.50		
	16QAM	1	0	20.68	20.65	20.73	21.50	
		1	38	20.63	20.59	20.52	21.50	
		1	74	20.59	20.54	20.51	21.50	
		36	0	19.52	19.63	19.26	20.50	
		36	18	19.67	19.56	19.30	20.50	
		36	39	19.66	19.60	19.35	20.50	
		75	0	19.84	19.89	19.92	20.50	
	64QAM	1	0	19.78	19.82	19.79	20.50	
		1	38	19.79	19.71	19.74	20.50	
		1	74	19.84	19.80	19.85	20.50	
		36	0	18.82	18.84	18.90	19.50	
		36	18	18.72	18.86	18.73	19.50	
		36	39	18.79	18.82	18.79	19.50	
		75	0	18.94	18.99	18.92	19.50	
	Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
					132072/1720	132322/1745	132572/1770	
	20MHz	QPSK	1	0	21.72	21.54	21.29	22.50
1			50	21.75	21.68	21.30	22.50	
1			99	21.73	21.52	21.23	22.50	
50			0	20.85	20.66	20.33	21.50	
50			25	20.72	20.58	20.29	21.50	
50			50	20.71	20.57	20.30	21.50	
100			0	20.69	20.58	20.31	21.50	
16QAM		1	0	20.66	20.61	20.68	21.50	
		1	50	20.59	20.57	20.48	21.50	
		1	99	20.57	20.51	20.49	21.50	
		50	0	19.49	19.59	19.23	20.50	
		50	25	19.64	19.54	19.27	20.50	
		50	50	19.63	19.55	19.31	20.50	
		100	0	19.82	19.85	19.89	20.50	
64QAM		1	0	19.76	19.78	19.74	20.50	

		1	50	19.75	19.69	19.70	20.50
		1	99	19.82	19.77	19.83	20.50
		50	0	18.79	18.80	18.87	19.50
		50	25	18.69	18.84	18.70	19.50
		50	50	18.76	18.77	18.75	19.50
		100	0	18.92	18.95	18.89	19.50

9.3.2 Conducted power measurements of Downlink LTE CA

The following conducted power measurement results of downlink LTE carrier aggregation are provided to quantify downlink only carrier aggregation SAR test exclusion per KDB 941225 D05A.

Uplink maximum output power is measured with downlink carrier aggregation active, using the channel with highest measured maximum output power when downlink carrier aggregation is inactive, to confirm that when downlink carrier aggregation is active uplink maximum output power remains within the specified tune-up tolerance limits and not more than ¼dB higher than the maximum output power measured when downlink carrier aggregation inactive.

Power test equipment: R&S Radio Communication Tester CMW500 was used.

The power measurements result are in the table as below:

Table: Conducted power measurement results of DL CA (Main Antenna, Full Power)

DL LTE CA Class	PCC						SCC1			SCC2			SCC3			SCC4			Power (dBm)			
	PCC Band	BW (MHz)	Modulation	PCC UL RB size	PCC UL RB offset	PCC UL Channel	PCC DL Channel	SCC Band	BW (MHz)	SCC DL Channel	SCC Band	BW (MHz)	SCC DL Channel	SCC Band	BW (MHz)	SCC DL Channel	SCC Band	BW (MHz)	SCC DL Channel	LTE Tx Power	DL LTE CA Tx Power	Tune-up
CA_2C	2	20	QPSK	1	99	18700	700	2	20	898	/	/	/	/	/	/	/	/	/	23.01	22.82	24
CA_5B	5	10	QPSK	1	0	20450	2450	5	10	2549	/	/	/	/	/	/	/	/	/	24.11	23.6	25
CA_38C	38	20	QPSK	1	99	37850	37850	38	20	38048	/	/	/	/	/	/	/	/	/	23.1	22.38	23.63
CA_41C	41	20	QPSK	1	0	40620	40620	41	20	40671	/	/	/	/	/	/	/	/	/	23.17	22.48	23.63
CA_66B	66	10	QPSK	1	49	132322	66786	66	10	66885	/	/	/	/	/	/	/	/	/	22.28	21.96	23
CA_2A-17A	2	20	QPSK	1	99	18700	700	17	10	5790	/	/	/	/	/	/	/	/	/	23.01	22.85	24
	17	10	QPSK	1	25	23790	5790	2	20	900	/	/	/	/	/	/	/	/	/	24.03	23.88	25
CA_4A-17A	4	20	QPSK	1	0	20050	2050	17	10	5790	/	/	/	/	/	/	/	/	/	22.63	21.67	23.5
CA_41D	41	20	QPSK	1	0	40620	40620	41	20	40671	41	20	40869	/	/	/	/	/	/	23.17	22.31	23.63
CA_66D	66	20	QPSK	1	99	132322	66786	66	20	66984	66	20	66932	/	/	/	/	/	/	22.22	21.95	23
CA_2A-4A-4A	2	20	QPSK	1	99	18700	700	4	20	2050	4	20	2300	/	/	/	/	/	/	23.01	22.6	24
	4	20	QPSK	1	0	20050	2050	4	10	2350	2	20	900	/	/	/	/	/	/	22.63	21.77	23.5
CA_4A-4A-5A	4	20	QPSK	1	0	20050	2050	4	10	2350	5	10	2525	/	/	/	/	/	/	22.63	21.64	23.5
	5	10	QPSK	1	0	20450	2450	4	20	2050	4	20	2300	/	/	/	/	/	/	24.11	23.49	25
CA_4A-4A-7A	4	20	QPSK	1	0	20050	2050	4	10	2350	7	20	3100	/	/	/	/	/	/	22.63	21.71	23.5
	7	20	QPSK	1	99	21350	3350	4	20	2050	4	20	2300	/	/	/	/	/	/	23.25	22.89	24
CA_4A-4A-12A	4	20	QPSK	1	0	20050	2050	4	10	2350	12	10	5095	/	/	/	/	/	/	22.63	21.74	23.5
CA_4A-12B	4	20	QPSK	1	0	20050	2050	12	5	5095	12	5	5143	/	/	/	/	/	/	22.63	21.67	23.5
CA_5A-7C	5	10	QPSK	1	0	20450	2450	7	20	3100	7	20	3298	/	/	/	/	/	/	24.11	23.54	25
	7	20	QPSK	1	99	21350	3350	7	20	3048	5	10	2525	/	/	/	/	/	/	23.25	22.78	24
CA_5A-7A-7A	5	10	QPSK	1	0	20450	2450	7	20	2850	7	20	3350	/	/	/	/	/	/	24.11	23.58	25
	7	20	QPSK	1	99	21350	3350	7	20	3350	5	10	2525	/	/	/	/	/	/	23.25	22.86	24
CA_12A-66A-66A	66	20	QPSK	1	99	132322	66786	66	20	67036	12	10	2095	/	/	/	/	/	/	22.22	21.93	23
CA_2A-4A-5A	2	20	QPSK	1	99	18700	700	4	20	2175	5	10	2525	/	/	/	/	/	/	23.01	22.7	24
	4	20	QPSK	1	0	20050	2050	2	20	900	5	10	2525	/	/	/	/	/	/	22.63	21.76	23.5
	5	10	QPSK	1	0	20450	2450	2	20	900	4	20	2175	/	/	/	/	/	/	24.11	23.54	25
CA_7A-7A-66A-66A	7	20	QPSK	1	99	21350	3350	7	20	3350	66	20	66536	66	20	67036	/	/	/	23.25	22.83	24
	66	20	QPSK	1	99	132322	66786	66	20	67036	7	20	2850	7	20	3350	/	/	/	22.22	21.85	23
CA_7C-66A-66A	7	20	QPSK	1	99	21350	3350	7	20	3048	66	20	66536	66	20	67036	/	/	/	23.25	22.81	24
	66	20	QPSK	1	99	132322	66786	66	20	67036	7	20	3100	7	20	3298	/	/	/	22.22	21.98	23
CA_2A-4A-7A-7A	2	20	QPSK	1	99	18700	700	4	20	2175	7	20	2850	7	20	3350	/	/	/	23.01	23.05	24
	4	20	QPSK	1	0	20050	2050	2	20	900	7	20	2850	7	20	3350	/	/	/	22.63	21.67	23.5
	7	20	QPSK	1	99	21350	3350	7	20	3350	2	20	900	4	20	2300	/	/	/	23.25	22.82	24

CA_2A-4A-7C	2	20	QPSK	1	99	18700	700	4	20	2175	7	20	3100	7	20	3298	/	/	/	23.01	22.95	24
	4	20	QPSK	1	0	20050	2050	2	20	900	7	20	3100	7	20	3298	/	/	/	22.63	21.89	23.5
	7	20	QPSK	1	99	21350	3350	7	20	3048	2	20	900	4	20	2175	/	/	/	23.25	22.81	24
CA_2A-4A-12A-12A	2	20	QPSK	1	99	18700	700	4	20	2175	12	5	5035	12	5	5155	/	/	/	23.01	22.87	24
	4	20	QPSK	1	0	20050	2050	2	20	900	12	5	5035	12	5	5155	/	/	/	22.63	21.64	23.5
CA_2A-2A-5A-66A	2	20	QPSK	1	99	18700	700	2	20	1100	5	10	2525	66	20	66786	/	/	/	23.01	22.85	24
	5	10	QPSK	1	0	20450	2450	2	20	700	2	20	1100	66	20	66786	/	/	/	24.11	23.49	25
	66	20	QPSK	1	99	132322	66786	2	20	700	2	20	1100	5	10	2525	/	/	/	22.22	21.92	23
CA_2A-7A-7A-66A	2	20	QPSK	1	99	18700	700	7	20	2850	7	20	3350	66	20	66786	/	/	/	23.01	22.68	24
	7	20	QPSK	1	99	21350	3350	7	20	3350	2	20	900	66	20	66786	/	/	/	23.25	22.84	24
	66	20	QPSK	1	99	132322	66786	2	20	900	7	20	2850	7	20	3350	/	/	/	22.22	21.97	23
CA_2A-7A-66A-66A	2	20	QPSK	1	99	18700	700	7	20	3100	66	20	66536	66	20	67036	/	/	/	23.01	22.85	24
	7	20	QPSK	1	99	21350	3350	2	20	900	66	20	66536	66	20	67036	/	/	/	23.25	22.75	24
	66	20	QPSK	1	99	132322	66786	66	20	67036	2	20	900	7	20	3100	/	/	/	22.22	21.91	23
CA_2A-4A-7A-12A	2	20	QPSK	1	99	18700	700	4	20	2175	7	20	3100	12	10	5095	/	/	/	23.01	22.67	24
	4	20	QPSK	1	0	20050	2050	2	20	900	7	20	3100	12	10	5095	/	/	/	22.63	21.62	23.5
	7	20	QPSK	1	99	21350	3350	2	20	900	4	20	2175	12	10	5095	/	/	/	23.25	22.76	24
CA_2A-2A-5A-66C	2	20	QPSK	1	99	18700	700	2	20	1100	5	10	2525	66	20	66786	66	20	66984	23.01	22.96	24
	5	10	QPSK	1	0	20450	2450	2	20	700	2	20	1100	66	20	66786	66	20	66984	24.11	23.37	25
	66	20	QPSK	1	99	132322	66786	66	20	66734	2	20	700	2	20	1100	5	10	2525	22.22	21.94	23
CA_2A-2A-7A-12A-66A	2	20	QPSK	1	99	18700	700	2	20	1100	7	20	3100	12	10	5095	66	20	66786	23.01	22.86	24
	7	20	QPSK	1	99	21350	3350	2	20	700	2	20	1100	12	10	5095	66	20	66786	23.25	22.64	24
	66	20	QPSK	1	99	132322	66786	2	20	700	2	20	1100	7	20	3100	12	10	5095	22.22	21.97	23
CA_2A-7A-12B-66A	2	20	QPSK	1	99	18700	700	7	20	3100	12	5	5095	12	5	5143	66	20	66786	23.01	22.78	24
	7	20	QPSK	1	99	21350	3350	2	20	900	12	5	5095	12	5	5143	66	20	66786	23.25	22.56	24
	66	20	QPSK	1	99	132322	66786	2	20	900	7	20	3100	12	5	5095	12	5	5143	22.22	21.85	23

Table: Conducted power measurement results of DL CA (Main Antenna, Reduced Power Level D1&D2)

DL LTE CA Class	PCC						SCC1			SCC2			SCC3			SCC4			Power			
	PCC Band	BW (MHz)	Modulation	PCC UL RB size	PCC UL RB offset	PCC UL Channel	PCC DL Channel	SCC Band	BW (MHz)	SCC DL Channel	SCC Band	BW (MHz)	SCC DL Channel	SCC Band	BW (MHz)	SCC DL Channel	SCC Band	BW (MHz)	SCC DL Channel	LTE Tx Power (dBm)	DL LTE CA Tx Power (dBm)	Tune-up
CA_2C	2	20	QPSK	1	0	18700	700	2	20	898	/	/	/	/	/	/	/	/	/	22.97	22.32	23.5
CA_5B	5	10	QPSK	1	25	20525	2525	5	10	2549	/	/	/	/	/	/	/	/	/	24.17	23.6	25
CA_38C	38	20	QPSK	1	99	37850	37850	38	20	38048	/	/	/	/	/	/	/	/	/	22.51	21.58	22.63
CA_41C	41	20	QPSK	1	0	40620	40620	41	20	40671	/	/	/	/	/	/	/	/	/	23.17	22.48	23.63
CA_66B	66	10	QPSK	1	49	132322	66786	66	10	66885	/	/	/	/	/	/	/	/	/	22.28	21.96	23
CA_2A-17A	2	20	QPSK	1	0	18700	700	17	10	5790	/	/	/	/	/	/	/	/	/	22.97	22.35	23.5
	17	10	QPSK	1	25	23790	5790	2	20	900	/	/	/	/	/	/	/	/	/	24.03	23.88	25
CA_4A-17A	4	20	QPSK	1	99	20175	2175	17	10	5790	/	/	/	/	/	/	/	/	/	22.43	21.57	22.5
CA_41D	41	20	QPSK	1	0	40620	40620	41	20	40671	41	20	40869	/	/	/	/	/	/	23.17	22.31	23.63
CA_66D	66	20	QPSK	1	99	132322	66786	66	20	66984	66	20	67101	/	/	/	/	/	/	22.22	21.95	23
CA_2A-4A-4A	2	20	QPSK	1	0	18700	700	4	20	2050	4	20	2300	/	/	/	/	/	/	22.97	22.33	23.5
	4	20	QPSK	1	99	20175	2175	4	10	2350	2	20	900	/	/	/	/	/	/	22.43	21.57	22.5
CA_4A-4A-5A	4	20	QPSK	1	99	20175	2175	4	10	2350	5	10	2525	/	/	/	/	/	/	22.43	21.44	22.5
	5	10	QPSK	1	25	20525	2525	4	20	2050	4	20	2300	/	/	/	/	/	/	24.17	23.49	25
CA_4A-4A-7A	4	20	QPSK	1	99	20175	2175	4	10	2350	7	20	3100	/	/	/	/	/	/	22.43	21.61	22.5
	7	20	QPSK	1	99	21350	3350	4	20	2050	4	20	2300	/	/	/	/	/	/	21.1	20.49	21.5
CA_4A-4A-12A	4	20	QPSK	1	99	20175	2175	4	10	2350	12	10	5095	/	/	/	/	/	/	22.43	21.64	22.5
CA_4A-12B	4	20	QPSK	1	99	20175	2175	12	5	5095	12	5	5143	/	/	/	/	/	/	22.43	21.67	22.5
CA_5A-7C	5	10	QPSK	1	25	20525	2525	7	20	3100	7	20	3298	/	/	/	/	/	/	24.17	23.54	25
	7	20	QPSK	1	99	21350	3350	7	20	3048	5	10	2525	/	/	/	/	/	/	21.1	20.38	21.5
CA_5A-7A-7A	5	10	QPSK	1	25	20525	2525	7	20	2850	7	20	3350	/	/	/	/	/	/	24.17	23.58	25
	7	20	QPSK	1	99	21350	3350	7	20	3100	5	10	2525	/	/	/	/	/	/	21.1	20.36	21.5
CA_12A-66A-66A	66	20	QPSK	1	99	132322	66786	66	20	67036	12	10	2095	/	/	/	/	/	/	22.22	21.93	23

CA_2A-4A-5A	2	20	QPSK	1	0	18700	700	4	20	2175	5	10	2525	/	/	/	/	/	/	22.97	22.45	23.5
	4	20	QPSK	1	99	20175	2175	2	20	900	5	10	2525	/	/	/	/	/	/	22.43	21.66	22.5
	5	10	QPSK	1	25	20525	2525	2	20	900	4	20	2175	/	/	/	/	/	/	24.17	23.54	25
CA_7A-7A-66A-66A	7	20	QPSK	1	99	21350	3350	7	20	3100	66	20	66536	66	20	67036	/	/	/	21.1	20.43	21.5
	66	20	QPSK	1	99	132322	66786	66	20	67036	7	20	2850	7	20	3350	/	/	/	22.22	21.85	23
CA_7C-66A-66A	7	20	QPSK	1	99	21350	3350	7	20	3048	66	20	66536	66	20	67036	/	/	/	21.1	20.41	21.5
	66	20	QPSK	1	99	132322	66786	66	20	67036	7	20	3100	7	20	3298	/	/	/	22.22	21.98	23
CA_2A-4A-7A-7A	2	20	QPSK	1	0	18700	700	4	20	2175	7	20	2850	7	20	3350	/	/	/	22.97	22.55	23.5
	4	20	QPSK	1	99	20175	2175	2	20	900	7	20	2850	7	20	3350	/	/	/	22.43	21.64	22.5
	7	20	QPSK	1	99	21350	3350	7	20	3100	2	20	900	4	20	2300	/	/	/	21.1	20.42	21.5
CA_2A-4A-7C	2	20	QPSK	1	0	18700	700	4	20	2175	7	20	3100	7	20	3298	/	/	/	22.97	22.45	23.5
	4	20	QPSK	1	99	20175	2175	2	20	900	7	20	3100	7	20	3298	/	/	/	22.43	21.83	22.5
	7	20	QPSK	1	99	21350	3350	7	20	3048	2	20	900	4	20	2175	/	/	/	21.1	20.31	21.5
CA_2A-4A-12A-12A	2	20	QPSK	1	0	18700	700	4	20	2175	12	5	5035	12	5	5155	/	/	/	22.97	22.47	23.5
	4	20	QPSK	1	99	20175	2175	2	20	900	12	5	5035	12	5	5155	/	/	/	22.43	21.63	22.5
CA_2A-2A-5A-66A	2	20	QPSK	1	0	18700	700	2	20	1100	5	10	2525	66	20	66786	/	/	/	22.97	22.45	23.5
	5	10	QPSK	1	25	20525	2525	2	20	700	2	20	1100	66	20	66786	/	/	/	24.17	23.49	25
	66	20	QPSK	1	99	132322	66786	2	20	700	2	20	1100	5	10	2525	/	/	/	22.22	21.92	23
CA_2A-7A-7A-66A	2	20	QPSK	1	0	18700	700	7	20	2850	7	20	3350	66	20	66786	/	/	/	22.97	22.38	23.5
	7	20	QPSK	1	99	21350	3350	7	20	3100	2	20	900	66	20	66786	/	/	/	21.1	20.44	21.5
	66	20	QPSK	1	99	132322	66786	2	20	900	7	20	2850	7	20	3350	/	/	/	22.22	21.97	23
CA_2A-7A-66A-66A	2	20	QPSK	1	0	18700	700	7	20	3100	66	20	66536	66	20	67036	/	/	/	22.97	22.35	23.5
	7	20	QPSK	1	99	21350	3350	2	20	900	66	20	66536	66	20	67036	/	/	/	21.1	20.35	21.5
	66	20	QPSK	1	99	132322	66786	66	20	67036	2	20	900	7	20	3100	/	/	/	22.22	21.91	23
CA_2A-4A-7A-12A	2	20	QPSK	1	0	18700	700	4	20	2175	7	20	3100	12	10	5095	/	/	/	22.97	22.37	23.5
	4	20	QPSK	1	99	20175	2175	2	20	900	7	20	3100	12	10	5095	/	/	/	22.43	21.58	22.5
	7	20	QPSK	1	99	21350	3350	2	20	900	4	20	2175	12	10	5095	/	/	/	21.1	20.36	21.5
CA_2A-2A-5A-66C	2	20	QPSK	1	0	18700	700	2	20	1100	5	10	2525	66	20	66786	66	20	66984	22.97	22.46	23.5
	5	10	QPSK	1	25	20525	2525	2	20	700	2	20	1100	66	20	66786	66	20	66984	24.17	23.37	25
	66	20	QPSK	1	99	132322	66786	66	20	66734	2	20	700	2	20	1100	5	10	2525	22.22	21.94	23
CA_2A-2A-7A-12A-66A	2	20	QPSK	1	0	18700	700	2	20	1100	7	20	3100	12	10	5095	66	20	66786	22.97	22.26	23.5
	7	20	QPSK	1	99	21350	3350	2	20	700	2	20	1100	12	10	5095	66	20	66786	21.1	20.24	21.5
	66	20	QPSK	1	99	132322	66786	2	20	700	2	20	1100	7	20	3100	12	10	5095	22.22	21.97	23
CA_2A-7A-12B-66A	2	20	QPSK	1	0	18700	700	7	20	3100	12	5	5095	12	5	5143	66	20	66786	22.97	22.28	23.5
	7	20	QPSK	1	99	21350	3350	2	20	900	12	5	5095	12	5	5143	66	20	66786	21.1	20.26	21.5
	66	20	QPSK	1	99	132322	66786	2	20	900	7	20	3100	12	5	5095	12	5	5143	22.22	21.85	23

Table: Conducted power measurement results of DL CA (Second Antenna, Full Power)

DL LTE CA Class	PCC						SCC1			SCC2			SCC3			SCC4			Power			
	PCC Band	BW (MHz)	Modulation	PCC UL RB size	PCC UL RB offset	PCC UL Channel	PCC DL Channel	SCC Band	BW (MHz)	SCC DL Channel	SCC Band	BW (MHz)	SCC DL Channel	SCC Band	BW (MHz)	SCC DL Channel	SCC Band	BW (MHz)	SCC DL Channel	LTE Tx Power (dBm)	DL LTE CA Tx Power (dBm)	Tune-up
CA_2C	2	20	QPSK	1	0	18700	700	2	20	898	/	/	/	/	/	/	/	/	/	22.13	21.92	23
CA_5B	5	10	QPSK	1	25	20450	2450	5	10	2549	/	/	/	/	/	/	/	/	/	24.35	23.6	25
CA_38C	38	20	QPSK	1	0	37850	37850	38	20	38048	/	/	/	/	/	/	/	/	/	22	21.3	22.63
CA_41C	41	20	QPSK	1	50	40185	40185	41	20	40671	/	/	/	/	/	/	/	/	/	22.28	21.98	23.13
CA_66B	66	10	QPSK	1	49	132022	66486	66	10	66585	/	/	/	/	/	/	/	/	/	21.77	21.26	22.5
CA_2A-17A	2	20	QPSK	1	0	18700	700	17	10	5790	/	/	/	/	/	/	/	/	/	22.13	21.95	23
	17	10	QPSK	1	25	23780	5780	2	20	900	/	/	/	/	/	/	/	/	/	23.92	23.71	25
CA_4A-17A	4	20	QPSK	1	0	20050	2050	17	10	5790	/	/	/	/	/	/	/	/	/	22.03	21.67	22.8
CA_41D	41	20	QPSK	1	50	40185	40185	41	20	40671	41	20	40869	/	/	/	/	/	/	22.28	21.81	23.13
CA_66D	66	20	QPSK	1	50	132072	66536	66	20	66734	66	20	66932	/	/	/	/	/	/	21.75	21.45	22.5
CA_2A-4A-4A	2	20	QPSK	1	0	18700	700	4	20	2050	4	20	2300	/	/	/	/	/	/	22.13	21.9	23
	4	20	QPSK	1	0	20050	2050	4	10	2325	2	20	900	/	/	/	/	/	/	22.03	21.77	22.8
CA_4A-4A-5A	4	20	QPSK	1	0	20050	2050	4	10	2325	5	10	2525	/	/	/	/	/	/	22.03	21.64	22.8
	5	10	QPSK	1	25	20450	2450	4	20	2050	4	20	2300	/	/	/	/	/	/	24.35	23.49	25
CA_4A-4A-	4	20	QPSK	1	0	20050	2050	4	10	2325	7	20	3100	/	/	/	/	/	/	22.03	21.51	22.8

7A	7	20	16QAM	1	0	20850	2850	4	20	2050	4	20	2300	/	/	/	/	/	20.28	19.88	20.5	
CA_4A-4A-12A	4	20	QPSK	1	0	20050	2050	4	10	2325	12	10	5095	/	/	/	/	/	22.03	21.74	22.8	
CA_4A-12B	4	20	QPSK	1	0	20050	2050	12	5	5095	12	5	5143	/	/	/	/	/	22.03	21.67	22.8	
CA_5A-7C	5	10	QPSK	1	25	20450	2450	7	20	3100	7	20	3298	/	/	/	/	/	24.35	23.54	25	
	7	20	16QAM	1	0	20850	2850	7	20	3048	5	10	2525	/	/	/	/	/	20.28	19.64	20.5	
CA_5A-7A-7A	5	10	QPSK	1	25	20450	2450	7	20	2850	7	20	3350	/	/	/	/	/	24.35	23.58	25	
	7	20	16QAM	1	0	20850	2850	7	20	3350	5	10	2525	/	/	/	/	/	20.28	19.83	20.5	
CA_12A-66A-66A	66	20	QPSK	1	50	132072	66536	66	20	67036	12	10	2095	/	/	/	/	/	21.75	21.63	22.5	
CA_2A-4A-5A	2	20	QPSK	1	0	18700	700	4	20	2175	5	10	2525	/	/	/	/	/	22.13	21.9	23	
	4	20	QPSK	1	0	20050	2050	2	20	900	5	10	2525	/	/	/	/	/	22.03	21.76	22.8	
	5	10	QPSK	1	25	20450	2450	2	20	900	4	20	2175	/	/	/	/	/	24.35	23.54	25	
CA_7A-7A-66A-66A	7	20	16QAM	1	0	20850	2850	7	20	3350	66	20	66536	66	20	67036	/	/	/	20.28	19.87	20.5
	66	20	QPSK	1	50	132072	66536	66	20	67036	7	20	2850	7	20	3350	/	/	/	21.75	21.35	22.5
CA_7C-66A-66A	7	20	16QAM	1	0	20850	2850	7	20	3048	66	20	66536	66	20	67036	/	/	/	20.28	19.82	20.5
	66	20	QPSK	1	50	132072	66536	66	20	67036	7	20	3100	7	20	3298	/	/	/	21.75	21.58	22.5
CA_2A-4A-7A-7A	2	20	QPSK	1	0	18700	700	4	20	2175	7	20	2850	7	20	3350	/	/	/	22.13	22.05	23
	4	20	QPSK	1	0	20050	2050	2	20	900	7	20	2850	7	20	3350	/	/	/	22.03	21.67	22.8
	7	20	16QAM	1	0	20850	2850	7	20	3350	2	20	900	4	20	2300	/	/	/	20.28	19.8	20.5
CA_2A-4A-7C	2	20	QPSK	1	0	18700	700	4	20	2175	7	20	3100	7	20	3298	/	/	/	22.13	21.98	23
	4	20	QPSK	1	0	20050	2050	2	20	900	7	20	3100	7	20	3298	/	/	/	22.03	21.49	22.8
	7	20	16QAM	1	0	20850	2850	7	20	3048	2	20	900	4	20	2175	/	/	/	20.28	19.81	20.5
CA_2A-4A-12A-12A	2	20	QPSK	1	0	18700	700	4	20	2175	12	5	5035	12	5	5155	/	/	/	22.13	21.57	23
	4	20	QPSK	1	0	20050	2050	2	20	900	12	5	5035	12	5	5155	/	/	/	22.03	21.64	22.8
CA_2A-2A-5A-66A	2	20	QPSK	1	0	18700	700	2	20	1100	5	10	2525	66	20	66786	/	/	/	22.13	21.98	23
	5	10	QPSK	1	25	20450	2450	2	20	700	2	20	1100	66	20	66786	/	/	/	24.35	23.49	25
	66	20	QPSK	1	50	132072	66536	2	20	700	2	20	1100	5	10	2525	/	/	/	21.75	21.62	22.5
CA_2A-7A-7A-66A	2	20	QPSK	1	0	18700	700	7	20	2850	7	20	3350	66	20	66786	/	/	/	22.13	21.83	23
	7	20	16QAM	1	0	20850	2850	7	20	3350	2	20	900	66	20	66786	/	/	/	20.28	19.88	20.5
	66	20	QPSK	1	50	132072	66536	2	20	900	7	20	2850	7	20	3350	/	/	/	21.75	21.47	22.5
CA_2A-7A-66A-66A	2	20	QPSK	1	0	18700	700	7	20	3100	66	20	66536	66	20	67036	/	/	/	22.13	21.84	23
	7	20	16QAM	1	0	20850	2850	2	20	900	66	20	66536	66	20	67036	/	/	/	20.28	19.7	20.5
	66	20	QPSK	1	50	132072	66536	66	20	67036	2	20	900	7	20	3100	/	/	/	21.75	21.61	22.5
CA_2A-4A-7A-12A	2	20	QPSK	1	0	18700	700	4	20	2175	7	20	3100	12	10	5095	/	/	/	22.13	21.99	23
	4	20	QPSK	1	0	20050	2050	2	20	900	7	20	3100	12	10	5095	/	/	/	22.03	21.62	22.8
	7	20	16QAM	1	0	20850	2850	2	20	900	4	20	2175	12	10	5095	/	/	/	20.28	19.77	20.5
CA_2A-2A-5A-66C	2	20	QPSK	1	0	18700	700	2	20	1100	5	10	2525	66	20	66786	66	20	66984	22.13	21.48	23
	5	10	QPSK	1	25	20450	2450	2	20	700	2	20	1100	66	20	66786	66	20	66984	24.35	23.37	25
	66	20	QPSK	1	50	132072	66536	66	20	66734	2	20	700	2	20	1100	5	10	2525	21.75	21.54	22.5
CA_2A-2A-7A-12A-66A	2	20	QPSK	1	0	18700	700	2	20	1100	7	20	3100	12	10	5095	66	20	66786	22.13	22.06	23
	7	20	16QAM	1	0	20850	2850	2	20	700	2	20	1100	12	10	5095	66	20	66786	20.28	19.51	20.5
	66	20	QPSK	1	50	132072	66536	2	20	700	2	20	1100	7	20	3100	12	10	5095	21.75	21.47	22.5
CA_2A-7A-12B-66A	2	20	QPSK	1	0	18700	700	7	20	3100	12	5	5095	12	5	5143	66	20	66786	22.13	21.83	23
	7	20	16QAM	1	0	20850	2850	2	20	900	12	5	5095	12	5	5143	66	20	66786	20.28	19.49	20.5
	66	20	QPSK	1	50	132072	66536	2	20	900	7	20	3100	12	5	5095	12	5	5143	21.75	21.35	22.5

9.3.3 Conducted power measurements of LTE Downlink 4x4 MIMO

Table: Conducted power measurement results of LTE Band 2/4/7/66 DL 4x4 MIMO (Main Antenna, Full Power)

LTE Band	BW (MHz)	Channel	Modulation	RB Size	RB Offset	4x4 DL MIMO Tx Power (dBm)	Single Antenna Tx. Power (dBm)	Tune-up
Band 2	20	18900	QPSK	1	99	22.94	23.01	24
Band 4	20	20050	QPSK	1	0	22.37	22.63	23.5
Band 7	20	21100	16QAM	1	99	22.84	23.26	24
Band 66	20	132322	QPSK	1	99	21.86	22.22	23

Table: Conducted power measurement results of LTE DL 4x4 MIMO with CA(Main Antenna, Full Power)

DL LTE CA Class	PCC						SCC1				SCC2				SCC3				SCC4				Power						
	PCC Band	PCC BW (MHz)	Modulation	PCC UL RB size	PCC UL RB offset	PCC UL Channel	PCC DL Channel	Antenna Configuration	SCC Band	SCC BW (MHz)	SCC DL Channel	Antenna Configuration	SCC Band	SCC BW (MHz)	SCC DL Channel	Antenna Configuration	SCC Band	SCC BW (MHz)	SCC DL Channel	Antenna Configuration	SCC Band	SCC BW (MHz)	SCC DL Channel	Antenna Configuration	Without DL 4x4MIMO Tx Power	With DL 4x4MIMO Tx Power	Tune-up		
CA_2C	2	20	QPSK	1	0	18700	700	4*4 MIMO	2	20	898	4*4 MIMO	/	/	/	/	/	/	/	/	/	/	/	/	/	/	23.01	22.92	24
CA_66B	66	10	QPSK	1	49	132322	66786	4*4 MIMO	66	10	66885	4*4 MIMO	/	/	/	/	/	/	/	/	/	/	/	/	/	/	22.28	22.19	23
CA_2A-17A	2	20	QPSK	1	0	18700	700	4*4 MIMO	17	10	5790	2*2 MIMO	/	/	/	/	/	/	/	/	/	/	/	/	/	/	23.01	22.89	24
CA_5A-7A	5	10	QPSK	1	0	20450	2450	4*4 MIMO	7	20	2850	2*2 MIMO	/	/	/	/	/	/	/	/	/	/	/	/	/	/	24.11	24.05	25
CA_4A-17A	4	20	QPSK	1	99	21350	3350	2*2 MIMO	5	10	2525	4*4 MIMO	/	/	/	/	/	/	/	/	/	/	/	/	/	/	23.25	23.11	24
CA_66D	4	20	QPSK	1	99	20050	2050	4*4 MIMO	17	10	5790	2*2 MIMO	/	/	/	/	/	/	/	/	/	/	/	/	/	/	22.63	22.56	23.5
CA_66D	66	20	QPSK	1	99	132322	66786	4*4 MIMO	66	20	66984	4*4 MIMO	66	20	66640	4*4 MIMO	/	/	/	/	/	/	/	/	/	/	22.22	22.18	23
CA_4A-4A-7A	4	20	QPSK	1	0	20050	2050	2*2 MIMO	4	20	2300	2*2 MIMO	7	20	3100	4*4 MIMO	/	/	/	/	/	/	/	/	/	/	22.63	22.59	23.5
CA_4A-12B	7	20	QPSK	1	99	21350	3350	4*4 MIMO	4	20	2050	2*2 MIMO	4	10	2350	2*2 MIMO	/	/	/	/	/	/	/	/	/	/	23.25	23.14	24
CA_4A-12B	4	20	QPSK	1	0	20050	2050	4*4 MIMO	12	5	5095	2*2 MIMO	12	5	5143	2*2 MIMO	/	/	/	/	/	/	/	/	/	/	22.63	22.5	23.5
CA_5A-7C	5	10	QPSK	1	0	20450	2450	2*2 MIMO	7	20	3100	4*4 MIMO	7	20	3298	4*4 MIMO	/	/	/	/	/	/	/	/	/	/	24.11	24.02	25
CA_5A-7C	7	20	QPSK	1	99	21350	3350	4*4 MIMO	7	20	3152	4*4 MIMO	5	10	2525	2*2 MIMO	/	/	/	/	/	/	/	/	/	/	23.25	23.19	24
CA_2A-4A-5A	2	20	QPSK	1	0	18700	700	4*4 MIMO	4	20	2175	4*4 MIMO	5	10	2525	2*2 MIMO	/	/	/	/	/	/	/	/	/	/	23.01	22.99	24
CA_2A-4A-5A	4	20	QPSK	1	0	20050	2050	4*4 MIMO	2	20	900	4*4 MIMO	5	10	2525	2*2 MIMO	/	/	/	/	/	/	/	/	/	/	22.63	22.61	23.5
CA_2A-4A-5A	5	10	QPSK	1	0	20450	2450	2*2 MIMO	2	20	900	4*4 MIMO	4	20	2175	4*4 MIMO	/	/	/	/	/	/	/	/	/	/	24.11	24.02	25
CA_7C-66A-66A	7	20	QPSK	1	99	21350	3350	4*4 MIMO	7	20	3152	4*4 MIMO	66	20	66536	2*2 MIMO	66	20	67036	2*2 MIMO	/	/	/	/	/	/	23.25	23.14	24
CA_7C-66A-66A	66	20	QPSK	1	99	132322	66786	2*2 MIMO	66	20	67036	2*2 MIMO	7	20	3100	4*4 MIMO	7	20	3298	4*4 MIMO	/	/	/	/	/	/	22.22	22.1	23
CA_2A-4A-7A-7A	2	20	QPSK	1	0	18700	700	4*4 MIMO	4	20	2175	4*4 MIMO	7	20	2850	2*2 MIMO	7	20	3350	2*2 MIMO	/	/	/	/	/	/	23.01	22.95	24
CA_2A-4A-7A-7A	4	20	QPSK	1	0	20050	2050	2*2 MIMO	2	20	900	4*4 MIMO	7	20	2850	2*2 MIMO	7	20	3350	2*2 MIMO	/	/	/	/	/	/	22.63	22.59	23.5
CA_2A-4A-7A-7A	7	20	QPSK	1	99	21350	3350	2*2 MIMO	7	20	2850	2*2 MIMO	2	20	900	4*4 MIMO	4	20	2175	2*2 MIMO	/	/	/	/	/	/	23.25	23.16	24
CA_2A-4A-7C	2	20	QPSK	1	0	18700	700	4*4 MIMO	4	20	2175	4*4 MIMO	7	20	3100	2*2 MIMO	7	20	3298	2*2 MIMO	/	/	/	/	/	/	23.01	22.91	24
CA_2A-4A-7C	4	20	QPSK	1	0	20050	2050	4*4 MIMO	2	20	900	4*4 MIMO	7	20	3100	2*2 MIMO	7	20	3298	2*2 MIMO	/	/	/	/	/	/	22.63	22.62	23.5
CA_2A-4A-7C	7	20	QPSK	1	99	21350	3350	2*2 MIMO	7	20	3152	2*2 MIMO	2	20	900	4*4 MIMO	4	20	2175	4*4 MIMO	/	/	/	/	/	/	23.25	23.2	24
CA_2A-4A-12A-12A	2	20	QPSK	1	0	18700	700	4*4 MIMO	4	20	2175	4*4 MIMO	12	5	5035	2*2 MIMO	12	5	5155	2*2 MIMO	/	/	/	/	/	/	23.01	22.95	24
CA_2A-4A-12A-12A	4	20	QPSK	1	0	20050	2050	4*4 MIMO	2	20	900	4*4 MIMO	12	5	5035	2*2 MIMO	12	5	5155	2*2 MIMO	/	/	/	/	/	/	22.63	22.49	23.5
CA_2A-2A-5A-66A	2	20	QPSK	1	0	18700	700	2*2 MIMO	2	20	1100	2*2 MIMO	5	10	2525	2*2 MIMO	66	20	66786	4*4 MIMO	/	/	/	/	/	/	23.01	22.95	24
CA_2A-2A-5A-66A	5	10	QPSK	1	0	20450	2450	2*2 MIMO	2	20	700	2*2 MIMO	2	20	1100	2*2 MIMO	66	20	66786	4*4 MIMO	/	/	/	/	/	/	24.11	23.96	25
CA_2A-2A-5A-66A	66	20	QPSK	1	99	132322	66786	4*4 MIMO	2	20	700	2*2 MIMO	2	20	1100	2*2 MIMO	5	10	2525	2*2 MIMO	/	/	/	/	/	/	22.22	22.13	23
CA_2A-7A-66A	2	20	QPSK	1	0	18700	700	4*4 MIMO	7	20	2850	2*2 MIMO	7	20	3350	2*2 MIMO	66	20	66786	2*2 MIMO	/	/	/	/	/	/	23.01	22.87	24
CA_2A-7A-66A	7	20	QPSK	1	99	21350	3350	2*2 MIMO	7	20	2850	2*2 MIMO	2	20	900	4*4 MIMO	66	20	66786	2*2 MIMO	/	/	/	/	/	/	23.25	23.14	24
CA_2A-7A-66A	66	20	QPSK	1	99	132322	66786	2*2 MIMO	2	20	900	4*4 MIMO	7	20	2850	2*2 MIMO	7	20	3350	2*2 MIMO	/	/	/	/	/	/	22.22	22.07	23
CA_2A-7A-66A-66A	2	20	QPSK	1	0	18700	700	2*2 MIMO	7	20	3100	4*4 MIMO	66	20	66536	2*2 MIMO	66	20	67036	2*2 MIMO	/	/	/	/	/	/	23.01	22.92	24
CA_2A-7A-66A-66A	7	20	QPSK	1	99	21350	3350	4*4 MIMO	2	20	900	2*2 MIMO	66	20	66536	2*2 MIMO	66	20	67036	2*2 MIMO	/	/	/	/	/	/	23.25	23.13	24
CA_2A-7A-66A-66A	66	20	QPSK	1	99	132322	66786	2*2 MIMO	66	20	67036	2*2 MIMO	2	20	900	2*2 MIMO	7	20	3100	4*4 MIMO	/	/	/	/	/	/	22.22	22.1	23
CA_2A-4A-7A-12A	2	20	QPSK	1	0	18700	700	4*4 MIMO	4	20	2175	4*4 MIMO	7	20	3100	2*2 MIMO	12	10	5095	2*2 MIMO	/	/	/	/	/	/	23.01	22.86	24
CA_2A-4A-7A-12A	4	20	QPSK	1	0	20050	2050	4*4 MIMO	2	20	900	4*4 MIMO	7	20	3100	2*2 MIMO	12	10	5095	2*2 MIMO	/	/	/	/	/	/	22.63	22.59	23.5
CA_2A-4A-7A-12A	7	20	QPSK	1	99	21350	3350	2*2 MIMO	2	20	900	4*4 MIMO	4	20	2175	4*4 MIMO	12	10	5095	2*2 MIMO	/	/	/	/	/	/	23.25	23.13	24
CA_2A-2A-5A-66C	2	20	QPSK	1	0	18700	700	2*2 MIMO	2	20	1100	2*2 MIMO	5	10	2525	2*2 MIMO	66	20	66786	4*4 MIMO	66	20	66984	4*4 MIMO	23.01	22.95	24		
CA_2A-2A-5A-66C	5	10	QPSK	1	0	20450	2450	2*2 MIMO	2	20	700	2*2 MIMO	2	20	1100	2*2 MIMO	66	20	66786	4*4 MIMO	66	20	66984	4*4 MIMO	24.11	24.03	25		
CA_2A-2A-5A-66C	66	20	QPSK	1	99	132322	66786	4*4 MIMO	66	20	66734	4*4 MIMO	2	20	700	2*2 MIMO	2	20	900	2*2 MIMO	5	10	2525	2*2 MIMO	22.22	22.11	23		
CA_2A-2A-7A-12A-66A	2	20	QPSK	1	0	18700	700	2*2 MIMO	2	20	1100	2*2 MIMO	7	20	3100	4*4 MIMO	12	10	5095	2*2 MIMO	66	20	66786	2*2 MIMO	23.01	22.91	24		
CA_2A-2A-7A-12A-66A	7	20	QPSK	1	99	21350	3350	4*4 MIMO	2	20	700	2*2 MIMO	2	20	1100	2*2 MIMO	12	10	5095	2*2 MIMO	66	20	66786	2*2 MIMO	23.25	23.19	24		
CA_2A-2A-7A-12A-66A	66	20	QPSK	1	99	132322																							

Table: Conducted power measurement results of LTE Band 2/4/7/66 DL 4x4 MIMO (Main Antenna, Reduced Power Level D1&D2)

LTE Band	BW (MHz)	Channel	Modulation	RB Size	RB Offset	4x4 DL MIMO Tx Power (dBm)	Single Antenna Tx. Power (dBm)	Tune-up
Band 2	20	18700	QPSK	1	0	22.44	22.97	23.5
Band 4	20	20175	QPSK	1	99	21.97	22.43	22.5
Band 7	20	21350	QPSK	1	99	20.84	21.1	21.5
Band 66	20	132322	QPSK	1	99	21.96	22.22	23

Table: Conducted power measurement results of LTE DL 4x4 MIMO with CA(Main Antenna, Reduced Power Level D1&D2)

DL LTE CA Class	PCC						SCC1			SCC2			SCC3			SCC4			Power								
	PCC Band	PCC BW(MHz)	Modulation	PCC UL RB size	PCC UL RB offset	PCC UL Channel	PCC DL Channel	DL Antenna Configuration	SCC Band	SCC BW(MHz)	SCC DL Channel	DL Antenna Configuration	SCC Band	SCC BW(MHz)	SCC DL Channel	DL Antenna Configuration	SCC Band	SCC BW(MHz)	SCC DL Channel	DL Antenna Configuration	Without DL 4x4MIMO Tx Power	With DL 4x4MIMO Tx Power	Tune-up				
CA_2C	2	20	QPSK	1	0	18700	700	4*4 MIMO	2	20	898	4*4 MIMO	/	/	/	/	/	/	/	/	/	/	22.97	22.96	23.5		
CA_66B	66	10	QPSK	1	49	132322	66786	4*4 MIMO	66	10	66885	4*4 MIMO	/	/	/	/	/	/	/	/	/	/	22.28	22.26	23		
CA_2A-17A	2	20	QPSK	1	0	18700	700	4*4 MIMO	17	10	5790	2*2 MIMO	/	/	/	/	/	/	/	/	/	/	22.97	22.92	23.5		
CA_4A-17A	4	20	QPSK	1	99	20175	2175	4*4 MIMO	17	10	5790	2*2 MIMO	/	/	/	/	/	/	/	/	/	/	22.43	22.32	22.5		
CA_5A-7A	5	10	QPSK	1	25	20525	2525	2*2 MIMO	7	20	2850	4*4 MIMO	/	/	/	/	/	/	/	/	/	/	24.17	24.08	25		
CA_66D	66	20	QPSK	1	99	132322	66786	4*4 MIMO	66	20	66984	4*4 MIMO	66	20	67101	4*4 MIMO	/	/	/	/	/	/	22.22	22.16	23		
CA_4A-4A-7A	4	20	QPSK	1	99	20175	2175	2*2 MIMO	4	20	2050	2*2 MIMO	7	20	3100	4*4 MIMO	/	/	/	/	/	/	22.43	22.4	22.5		
CA_4A-12B	4	20	QPSK	1	99	21350	3350	4*4 MIMO	4	20	2050	2*2 MIMO	4	10	2350	2*2 MIMO	/	/	/	/	/	/	21.1	21.03	21.5		
CA_5A-7C	5	10	QPSK	1	25	20525	2525	2*2 MIMO	7	20	3100	4*4 MIMO	7	20	3298	4*4 MIMO	/	/	/	/	/	/	24.17	24.15	25		
CA_2A-4A-5A	7	20	QPSK	1	0	18700	700	4*4 MIMO	4	20	2175	4*4 MIMO	5	10	2525	2*2 MIMO	/	/	/	/	/	/	21.1	21.01	21.5		
CA_2A-4A-5A	4	20	QPSK	1	99	20175	2175	4*4 MIMO	2	20	900	4*4 MIMO	5	10	2525	2*2 MIMO	/	/	/	/	/	/	22.43	22.29	22.5		
CA_2A-4A-5A	5	10	QPSK	1	25	20525	2525	2*2 MIMO	2	20	900	4*4 MIMO	4	20	2175	4*4 MIMO	/	/	/	/	/	/	24.17	24.08	25		
CA_7C-66A-66A	7	20	QPSK	1	99	21350	3350	4*4 MIMO	7	20	3152	4*4 MIMO	66	20	66536	2*2 MIMO	66	20	67036	2*2 MIMO	/	/	21.1	21.08	21.5		
CA_7C-66A-66A	66	20	QPSK	1	99	132322	66786	4*4 MIMO	66	20	67036	2*2 MIMO	7	20	3100	4*4 MIMO	7	20	3298	4*4 MIMO	/	/	22.22	22.2	23		
CA_2A-4A-7A-7A	2	20	QPSK	1	0	18700	700	4*4 MIMO	4	20	2175	2*2 MIMO	7	20	2850	2*2 MIMO	7	20	3350	2*2 MIMO	/	/	22.97	22.92	23.5		
CA_2A-4A-7A-7A	4	20	QPSK	1	99	20175	2175	2*2 MIMO	2	20	900	4*4 MIMO	7	20	2850	2*2 MIMO	7	20	3350	2*2 MIMO	/	/	22.43	22.36	22.5		
CA_2A-4A-7A-7A	7	20	QPSK	1	99	21350	3350	2*2 MIMO	7	20	2850	2*2 MIMO	2	20	900	4*4 MIMO	4	20	2175	2*2 MIMO	/	/	21.1	21	21.5		
CA_2A-4A-7A-7A	2	20	QPSK	1	0	18700	700	4*4 MIMO	4	20	2175	4*4 MIMO	7	20	3100	2*2 MIMO	7	20	3298	2*2 MIMO	/	/	22.97	22.84	23.5		
CA_2A-4A-7A-7A	4	20	QPSK	1	99	20175	2175	4*4 MIMO	2	20	900	4*4 MIMO	7	20	3100	2*2 MIMO	7	20	3298	2*2 MIMO	/	/	22.43	22.38	22.5		
CA_2A-4A-7A-7A	7	20	QPSK	1	99	21350	3350	2*2 MIMO	7	20	3152	2*2 MIMO	2	20	900	4*4 MIMO	4	20	2175	4*4 MIMO	/	/	21.1	20.97	21.5		
CA_2A-4A-12A-12A	2	20	QPSK	1	0	18700	700	4*4 MIMO	4	20	2175	4*4 MIMO	12	5	5035	2*2 MIMO	12	5	5155	2*2 MIMO	/	/	22.97	22.96	23.5		
CA_2A-4A-12A-12A	4	20	QPSK	1	99	20175	2175	4*4 MIMO	2	20	900	4*4 MIMO	12	5	5035	2*2 MIMO	12	5	5155	2*2 MIMO	/	/	22.43	22.35	22.5		
CA_2A-2A-5A-66A	2	20	QPSK	1	0	18700	700	2*2 MIMO	2	20	1100	2*2 MIMO	5	10	2525	2*2 MIMO	66	20	66786	4*4 MIMO	/	/	22.97	22.85	23.5		
CA_2A-2A-5A-66A	5	10	QPSK	1	25	20525	2525	2*2 MIMO	2	20	700	2*2 MIMO	2	20	1100	2*2 MIMO	66	20	66786	4*4 MIMO	/	/	24.17	24.09	25		
CA_2A-2A-5A-66A	66	20	QPSK	1	99	132322	66786	4*4 MIMO	2	20	700	2*2 MIMO	2	20	1100	2*2 MIMO	5	10	2525	2*2 MIMO	/	/	22.22	22.13	23		
CA_2A-7A-7A-66A	2	20	QPSK	1	0	18700	700	4*4 MIMO	7	20	2850	2*2 MIMO	7	20	3350	2*2 MIMO	66	20	66786	2*2 MIMO	/	/	22.97	22.85	23.5		
CA_2A-7A-7A-66A	7	20	QPSK	1	99	21350	3350	2*2 MIMO	7	20	2850	2*2 MIMO	2	20	900	4*4 MIMO	66	20	66786	2*2 MIMO	/	/	21.1	21.03	21.5		
CA_2A-7A-7A-66A	66	20	QPSK	1	99	132322	66786	2*2 MIMO	2	20	900	4*4 MIMO	7	20	2850	2*2 MIMO	7	20	3350	2*2 MIMO	/	/	22.22	22.14	23		
CA_2A-7A-6A-66A	2	20	QPSK	1	0	18700	700	2*2 MIMO	7	20	3100	4*4 MIMO	66	20	66536	2*2 MIMO	66	20	67036	2*2 MIMO	/	/	22.97	22.92	23.5		
CA_2A-7A-6A-66A	7	20	QPSK	1	99	21350	3350	4*4 MIMO	2	20	900	2*2 MIMO	66	20	66536	2*2 MIMO	66	20	67036	2*2 MIMO	/	/	21.1	21.07	21.5		
CA_2A-7A-6A-66A	66	20	QPSK	1	99	132322	66786	2*2 MIMO	66	20	67036	2*2 MIMO	2	20	900	2*2 MIMO	7	20	3100	4*4 MIMO	/	/	22.22	22.19	23		
CA_2A-4A-7A-12A	2	20	QPSK	1	0	18700	700	4*4 MIMO	4	20	2175	4*4 MIMO	7	20	3100	2*2 MIMO	12	10	5095	2*2 MIMO	/	/	22.97	22.85	23.5		
CA_2A-4A-7A-12A	4	20	QPSK	1	99	20175	2175	4*4 MIMO	2	20	900	4*4 MIMO	7	20	3100	2*2 MIMO	12	10	5095	2*2 MIMO	/	/	22.43	22.35	22.5		
CA_2A-4A-7A-12A	7	20	QPSK	1	99	21350	3350	2*2 MIMO	2	20	900	4*4 MIMO	4	20	2175	4*4 MIMO	12	10	5095	2*2 MIMO	/	/	21.1	20.96	21.5		
CA_2A-2A-5A-66C	2	20	QPSK	1	0	18700	700	2*2 MIMO	2	20	1100	2*2 MIMO	5	10	2525	2*2 MIMO	66	20	66786	4*4 MIMO	66	20	66984	4*4 MIMO	22.97	22.91	23.5
CA_2A-2A-5A-66C	5	10	QPSK	1	25	20525	2525	2*2 MIMO	2	20	700	2*2 MIMO	2	20	1100	2*2 MIMO	66	20	66786	4*4 MIMO	66	20	66984	4*4 MIMO	24.17	24.03	25
CA_2A-2A-5A-66C	66	20	QPSK	1	99	132322	66786	4*4 MIMO	66	20	66734	4*4 MIMO	2	20	700	2*2 MIMO	2	20	900	2*2 MIMO	5	10	2525	2*2 MIMO	22.22	22.18	23
CA_2A-2A-7A-12A-66A	2	20	QPSK	1	0	18700	700	2*2 MIMO	2	20	1100	2*2 MIMO	7	20	3100	4*4 MIMO	12	10	5095	2*2 MIMO	66	20	66786	2*2 MIMO	22.97	22.86	23.5
CA_2A-2A-7A-12A-66A	7	20	QPSK	1	99	21350	3350	4*4 MIMO	2	20	700	2*2 MIMO	2	20	1100	2*2 MIMO	12	10	5095	2*2 MIMO	66	20	66786	2*2 MIMO	21.1	21.07	21.5
CA_2A-2A-7A-12A-66A	66	20	QPSK	1	99	132322	66786	2*2 MIMO	2	20	700	2*2 MIMO	2	20	1100	2*2 MIMO	7	20	3100	4*4 MIMO	12	10	5095	2*2 MIMO	22.22	22.13	23
CA_2A-7A-12B-66A	2	20	QPSK	1	0	18700	700	4*4 MIMO	7	20	3100	4*4 MIMO	12	5	5095	2*2 MIMO	12	5	5143	2*2 MIMO	66	20	66786	2*2 MIMO	22.97	22.9	23.5
CA_2A-7A-12B-66A	7	20	QPSK	1	99	21350	3350	4*4 MIMO	2	20	900	4*4 MIMO	12	5	5095	2*2 MIMO	12	5	5143	2*2 MIMO	66	20	66786	2*2 MIMO	21.1	21.03	21.5
CA_2A-7A-12B-66A	66	20	QPSK	1	99	132322	66786	2*2 MIMO	2	20	900	4*4 MIMO	7	20	3100	4*4 MIMO	12	5	5095	2*2 MIMO	12	5	5143	2*2 MIMO	22.22	22.17	23

Table: Conducted power measurement results of LTE Band 2/4/7/66 DL 4x4 MIMO (Second Antenna, Full Power)

LTE Band	BW (MHz)	Channel	Modulation	RB Size	RB Offset	4x4 DL MIMO Tx Power (dBm)	Single Antenna Tx. Power (dBm)	Tune-up
Band 2	20	18700	QPSK	1	0	21.94	22.13	23
Band 4	20	20050	QPSK	1	0	21.75	22.03	22.8
Band 7	20	20850	16QAM	1	0	19.44	20.28	20.5
Band 66	20	132072	QPSK	1	50	21.48	21.75	22.5

Table: Conducted power measurement results of LTE DL 4x4 MIMO with CA(Second Antenna, Full Power)

DL LTE CA Class	PCC						SCC1			SCC2			SCC3			SCC4			Power								
	PCC Band	PCC BW(MHz)	Modulation	PCC UL RB size	PCC UL RB offset	PCC UL Channel	PCC DL Channel	DL Antenna Configuration	SCC Band	SCC BW(MHz)	SCC DL Channel	DL Antenna Configuration	SCC Band	SCC BW(MHz)	SCC DL Channel	DL Antenna Configuration	SCC Band	SCC BW(MHz)	SCC DL Channel	DL Antenna Configuration	Without DL 4x4MIMO Tx Power	With DL 4x4MIMO Tx Power	Tune-up				
CA_2C	2	20	QPSK	1	0	18700	700	4*4 MIMO	2	20	898	4*4 MIMO	/	/	/	/	/	/	/	/	22.13	22.09	23				
CA_66B	66	10	QPSK	1	49	132022	66486	4*4 MIMO	66	10	66585	4*4 MIMO	/	/	/	/	/	/	/	/	21.77	21.69	22.5				
CA_2A-17A	2	20	QPSK	1	0	18700	700	4*4 MIMO	17	10	5790	2*2 MIMO	/	/	/	/	/	/	/	/	22.13	21.98	23				
CA_4A-17A	4	20	QPSK	1	0	20500	2500	4*4 MIMO	17	10	5790	2*2 MIMO	/	/	/	/	/	/	/	/	22.03	21.96	22.8				
CA_5A-7A	5	10	QPSK	1	25	20450	2450	2*2 MIMO	7	20	3100	4*4 MIMO	/	/	/	/	/	/	/	/	24.35	24.22	25				
CA_66D	66	20	QPSK	1	50	132072	66536	4*4 MIMO	66	20	66734	4*4 MIMO	66	20	66932	4*4 MIMO	/	/	/	/	21.75	21.63	22.5				
CA_4A-4A-7A	4	20	QPSK	1	0	20500	2500	2*2 MIMO	4	10	2350	2*2 MIMO	7	20	3100	4*4 MIMO	/	/	/	/	22.03	21.98	22.8				
CA_4A-4A-7A	7	20	16QAM	1	0	20850	2850	4*4 MIMO	4	20	2050	2*2 MIMO	4	10	2350	2*2 MIMO	/	/	/	/	20.28	20.16	20.5				
CA_4A-12B	4	20	QPSK	1	0	20500	2500	4*4 MIMO	12	5	5095	2*2 MIMO	12	5	5143	2*2 MIMO	/	/	/	/	22.03	21.9	22.8				
CA_5A-7C	5	10	QPSK	1	25	20450	2450	2*2 MIMO	7	20	3100	4*4 MIMO	7	20	3298	4*4 MIMO	/	/	/	/	24.35	24.29	25				
CA_5A-7C	7	20	16QAM	1	0	20850	2850	4*4 MIMO	7	20	3048	4*4 MIMO	5	10	2525	2*2 MIMO	/	/	/	/	20.28	20.13	20.5				
CA_2A-4A-5A	4	20	QPSK	1	0	18700	700	4*4 MIMO	4	20	2175	4*4 MIMO	5	10	2525	2*2 MIMO	/	/	/	/	22.13	22.04	23				
CA_2A-4A-5A	4	20	QPSK	1	0	20500	2500	4*4 MIMO	2	20	900	4*4 MIMO	5	10	2525	2*2 MIMO	/	/	/	/	22.03	21.91	22.8				
CA_2A-4A-5A	5	10	QPSK	1	25	20450	2450	2*2 MIMO	2	20	900	4*4 MIMO	4	20	2175	4*4 MIMO	/	/	/	/	24.35	24.34	25				
CA_7C-66A-66A	7	20	16QAM	1	0	20850	2850	4*4 MIMO	7	20	3048	4*4 MIMO	66	20	66536	2*2 MIMO	66	20	67036	2*2 MIMO	/	/	20.28	20.19	20.5		
CA_7C-66A-66A	66	20	QPSK	1	50	132072	66536	2*2 MIMO	66	20	67036	2*2 MIMO	7	20	3100	4*4 MIMO	7	20	3298	4*4 MIMO	/	/	21.75	21.68	22.5		
CA_2A-4A-7A-7A	2	20	QPSK	1	0	18700	700	4*4 MIMO	4	20	2175	2*2 MIMO	7	20	2850	2*2 MIMO	7	20	3350	2*2 MIMO	/	/	22.13	22.03	23		
CA_2A-4A-7A-7A	4	20	QPSK	1	0	20500	2500	2*2 MIMO	2	20	900	4*4 MIMO	7	20	2850	2*2 MIMO	7	20	3350	2*2 MIMO	/	/	22.03	21.92	22.8		
CA_2A-4A-7A-7A	7	20	16QAM	1	0	20850	2850	2*2 MIMO	7	20	3350	2*2 MIMO	2	20	900	4*4 MIMO	4	20	2175	2*2 MIMO	/	/	20.28	20.18	20.5		
CA_2A-4A-7A-7A	2	20	QPSK	1	0	18700	700	4*4 MIMO	4	20	2175	4*4 MIMO	7	20	3100	2*2 MIMO	7	20	3298	2*2 MIMO	/	/	22.13	21.98	23		
CA_2A-4A-7A-7A	4	20	QPSK	1	0	20500	2500	4*4 MIMO	2	20	900	4*4 MIMO	7	20	3100	2*2 MIMO	7	20	3298	2*2 MIMO	/	/	22.03	21.95	22.8		
CA_2A-4A-7A-7A	7	20	16QAM	1	0	20850	2850	2*2 MIMO	7	20	3048	2*2 MIMO	2	20	900	4*4 MIMO	4	20	2175	4*4 MIMO	/	/	20.28	20.15	20.5		
CA_2A-4A-12A-12A	2	20	QPSK	1	0	18700	700	4*4 MIMO	4	20	2175	4*4 MIMO	12	5	5035	2*2 MIMO	12	5	5155	2*2 MIMO	/	/	22.13	22.01	23		
CA_2A-4A-12A-12A	4	20	QPSK	1	0	20500	2500	4*4 MIMO	2	20	900	4*4 MIMO	12	5	5035	2*2 MIMO	12	5	5155	2*2 MIMO	/	/	22.03	21.89	22.8		
CA_2A-2A-5A-66A	2	20	QPSK	1	0	18700	700	2*2 MIMO	2	20	700	2*2 MIMO	5	10	2525	2*2 MIMO	66	20	66786	4*4 MIMO	/	/	22.13	22.02	23		
CA_2A-2A-5A-66A	5	10	QPSK	1	25	20450	2450	2*2 MIMO	2	20	700	2*2 MIMO	2	20	1100	2*2 MIMO	66	20	66786	4*4 MIMO	/	/	24.35	24.3	25		
CA_2A-2A-5A-66A	66	20	QPSK	1	50	132072	66536	4*4 MIMO	2	20	700	2*2 MIMO	2	20	1100	2*2 MIMO	5	10	2525	2*2 MIMO	/	/	21.75	21.71	22.5		
CA_2A-7A-7A-66A	2	20	QPSK	1	0	18700	700	4*4 MIMO	7	20	2850	2*2 MIMO	7	20	3350	2*2 MIMO	66	20	66786	2*2 MIMO	/	/	22.13	22.01	23		
CA_2A-7A-7A-66A	7	20	16QAM	1	0	20850	2850	2*2 MIMO	7	20	3350	2*2 MIMO	2	20	900	4*4 MIMO	66	20	66786	2*2 MIMO	/	/	20.28	20.13	20.5		
CA_2A-7A-7A-66A	66	20	QPSK	1	50	132072	66536	2*2 MIMO	2	20	900	4*4 MIMO	7	20	2850	2*2 MIMO	7	20	3350	2*2 MIMO	/	/	21.75	21.65	22.5		
CA_2A-7A-6A-66A	2	20	QPSK	1	0	18700	700	2*2 MIMO	7	20	3100	4*4 MIMO	66	20	66536	2*2 MIMO	66	20	67036	2*2 MIMO	/	/	22.13	22.07	23		
CA_2A-7A-6A-66A	7	20	16QAM	1	0	20850	2850	4*4 MIMO	2	20	900	2*2 MIMO	66	20	66536	2*2 MIMO	66	20	67036	2*2 MIMO	/	/	20.28	20.14	20.5		
CA_2A-7A-6A-66A	66	20	QPSK	1	50	132072	66536	2*2 MIMO	66	20	67036	2*2 MIMO	2	20	900	2*2 MIMO	7	20	3100	4*4 MIMO	/	/	21.75	21.66	22.5		
CA_2A-4A-7A-12A	2	20	QPSK	1	0	18700	700	4*4 MIMO	4	20	2175	4*4 MIMO	7	20	3100	2*2 MIMO	12	10	5095	2*2 MIMO	/	/	22.13	22.03	23		
CA_2A-4A-7A-12A	4	20	QPSK	1	0	20500	2500	4*4 MIMO	2	20	900	4*4 MIMO	7	20	3100	2*2 MIMO	12	10	5095	2*2 MIMO	/	/	22.03	21.94	22.8		
CA_2A-4A-7A-12A	7	20	16QAM	1	0	20850	2850	2*2 MIMO	2	20	900	4*4 MIMO	4	20	2175	4*4 MIMO	12	10	5095	2*2 MIMO	/	/	20.28	20.17	20.5		
CA_2A-2A-5A-66C	2	20	QPSK	1	0	18700	700	2*2 MIMO	2	20	700	2*2 MIMO	5	10	2525	2*2 MIMO	66	20	66786	4*4 MIMO	66	20	66984	4*4 MIMO	22.13	22.06	23
CA_2A-2A-5A-66C	5	10	QPSK	1	25	20450	2450	2*2 MIMO	2	20	700	2*2 MIMO	2	20	1100	2*2 MIMO	66	20	66786	4*4 MIMO	66	20	66984	4*4 MIMO	24.35	24.24	25
CA_2A-2A-5A-66C	66	20	QPSK	1	50	132072	66536	4*4 MIMO	66	20	66734	4*4 MIMO	2	20	700	2*2 MIMO	2	20	900	2*2 MIMO	5	10	2525	2*2 MIMO	21.75	21.72	22.5
CA_2A-2A-7A-12A-66A	2	20	QPSK	1	0	18700	700	2*2 MIMO	2	20	700	2*2 MIMO	7	20	3100	4*4 MIMO	12	10	5095	2*2 MIMO	66	20	66786	2*2 MIMO	22.13	22.12	23
CA_2A-2A-7A-12A-66A	7	20	16QAM	1	0	20850	2850	4*4 MIMO	2	20	700	2*2 MIMO	2	20	1100	2*2 MIMO	12	10	5095	2*2 MIMO	66	20	66786	2*2 MIMO	20.28	20.2	20.5
CA_2A-2A-7A-12A-66A	66	20	QPSK	1	50	132072	66536	2*2 MIMO	2	20	700	2*2 MIMO	2	20	1100	2*2 MIMO	7	20	3100	4*4 MIMO	12	10	5095	2*2 MIMO	21.75	21.63	22.5
CA_2A-7A-12B-66A	2	20	QPSK	1	0	18700	700	4*4 MIMO	7	20	3100	4*4 MIMO	12	5	5095	2*2 MIMO	12	5	5143	2*2 MIMO	66	20	66786	2*2 MIMO	22.13	21.99	23
CA_2A-7A-12B-66A	7	20	16QAM	1	0	20850	2850	4*4 MIMO	2	20	900	4*4 MIMO	12	5	5095	2*2 MIMO	12	5	5143	2*2 MIMO	66	20	66786	2*2 MIMO	20.28	20.26	20.5
CA_2A-7A-12B-66A	66	20	QPSK	1	50	132072	66536	2*2 MIMO	2	20	900	4*4 MIMO	7	20	3100	4*4 MIMO	12	5	5095	2*2 MIMO	12	5	5143	2*2 MIMO	21.75	21.7	22.5

9.3.4 Uplink LTE CA

For Intra-band uplink LTE CA measurement (Uplink CA_7C, CA_38C, CA_41C), the following procedures applied:

Maximum output power is measured for each UL CA configuration for the required test channels:

- UL PCC configuration is determined by the required test channel
- SCC and subsequent CCs are added alternatively to either side of the PCC or within the transmission band for channels at the ends of a frequency band.

The MPR information for Intra-band uplink LTE CA is as below:

Table: MPR information for Uplink intra-band contiguous CA(QPSK and 16QAM)

For intra-band contiguous carrier aggregation the allowed Maximum Power Reduction (MPR) for the maximum output power in Table 6.2.2A.0-2 due to higher order modulation and contiguously allocated transmissions (resource blocks) is specified in Table 6.2.3A.1.3-1. In case the modulation format is different on different component carriers then the MPR is determined by the rules applied to higher order of those modulations.

Table 6.2.3A.1.3-1: Maximum Power Reduction (MPR) for Power Class 3								
Modulation	CA bandwidth Class B and C							MPR (dB)
	25 RB + 50 RB	50 RB + 50 RB	25 RB + 100 RB	50 RB + 100 RB	75 RB + 75 RB	75 RB + 100 RB	100 RB + 100 RB	
QPSK	> 8 and ≤ 25	> 12 and ≤ 50	> 8 and ≤ 25	> 12 and ≤ 50	> 16 and ≤ 75	> 16 and ≤ 75	> 18 and ≤ 100	≤ 1
QPSK	> 25	> 50	> 25	> 50	> 75	> 75	> 100	≤ 2
16 QAM	≤ 8	≤ 12	≤ 8	≤ 12	≤ 16	≤ 16	≤ 18	≤ 1
16 QAM	> 8 and ≤ 25	> 12 and ≤ 50	> 8 and ≤ 25	> 12 and ≤ 50	> 16 and ≤ 75	> 16 and ≤ 75	> 18 and ≤ 100	≤ 2
16 QAM	> 25	> 50	> 25	> 50	> 75	> 75	> 100	≤ 3

Table: MPR information for Uplink intra-band contiguous CA(64QAM)

For intra-band contiguous carrier aggregation the allowed Maximum Power Reduction (MPR) for the maximum output power in Table 6.2.2A.0-2 due to higher order modulation and contiguously aggregated transmit bandwidth configuration (resource blocks) is specified in Table 6.2.3A.1_1.3-1. In case the modulation format is different on different component carriers then the MPR is determined by the rules applied to higher order of those modulations.

Table 6.2.3A.1_1.3-1: Maximum Power Reduction (MPR) for Power Class 3								
Modulation	CA bandwidth Class B and C							MPR (dB)
	25 RB + 50 RB	50 RB + 50 RB	25 RB + 100 RB	50 RB + 100 RB	75 RB + 75 RB	75 RB + 100 RB	100 RB + 100 RB	
64 QAM	≤ 8 and allocation wholly contained within a single CC	≤ 12 and allocation wholly contained within a single CC	≤ 8 and allocation wholly contained within a single CC	≤ 12 and allocation wholly contained within a single CC	≤ 16 and allocation wholly contained within a single CC	≤ 16 and allocation wholly contained within a single CC	≤ 18 and allocation wholly contained within a single CC	≤ 2
64 QAM	> 8 or allocation extends across two CC's	> 12 or allocation extends across two CC's	> 8 or allocation extends across two CC's	> 12 or allocation extends across two CC's	> 16 or allocation extends across two CC's	> 16 or allocation extends across two CC's	> 18 or allocation extends across two CC's	≤ 3

The UL CA conducted power measurements results are as below:

Table: Additional Conducted Power test results of UL intra-band CA

Antenna	CA Combination	Test Scenario	Mod#.	PCC UL					SCC UL					power			
				BAND	BW (MHz)	CH#.	RB	offset	PCC DL channel	BAND	BW (MHz)	CH#.	RB	offset	Conducted Power	Tune-up	
Second Antenna	CA_7C	receiver off	QPSK	7	20	20850	1	99	2850	7	20	21048	1	0	19.43	20.5	
			QPSK	7	20	21100	1	99	3100	7	20	21298	1	0	19.52	20.5	
			QPSK	7	20	21100	1	0	3100	7	20	20902	1	99	19.34	20.5	
			QPSK	7	20	21350	1	0	3350	7	20	21152	1	99	19.63	20.5	
	CA_7C	reciver on	QPSK	7	20	20850	1	99	2850	7	20	21048	1	0	15.4	16.5	
			QPSK	7	20	21100	1	99	3100	7	20	21298	1	0	15.37	16.5	
			QPSK	7	20	21100	1	0	3100	7	20	20902	1	99	15.44	16.5	
			QPSK	7	20	21350	1	0	3350	7	20	21152	1	99	15.58	16.5	
Main Antenna	CA_7C	reciver on/Receiver off+SAR sensor on Level D7 sensor off+hotspot off	QPSK	7	20	20850	1	99	2850	7	20	21048	1	0	22.6	24	
			QPSK	7	20	21100	1	99	3100	7	20	21298	1	0	22.7	24	
			QPSK	7	20	21100	1	0	3100	7	20	20902	1	99	22.68	24	
			QPSK	7	20	21350	1	0	3350	7	20	21152	1	99	23.03	24	
	CA_7C	Receiver off+SAR sensor on Level D1&D2	QPSK	7	20	20850	1	99	2850	7	20	21048	1	0	20.3	21.5	
			QPSK	7	20	21100	1	99	3100	7	20	21298	1	0	20.62	21.5	
			QPSK	7	20	21100	1	0	3100	7	20	20902	1	99	20.37	21.5	
			QPSK	7	20	21350	1	0	3350	7	20	21152	1	99	20.63	21.5	
	CA_7C	Receiver off+SAR sensor on Level D3	QPSK	7	20	20850	1	99	2850	7	20	21048	1	0	21.27	22.5	
			QPSK	7	20	21100	1	99	3100	7	20	21298	1	0	21.64	22.5	
			QPSK	7	20	21100	1	0	3100	7	20	20902	1	99	21.42	22.5	
			QPSK	7	20	21350	1	0	3350	7	20	21152	1	99	21.69	22.5	
	CA_7C	Hotspot on+Receiver on/Hotspot on+Receiver off+SAR sensor on Level D7 sensor off+hotspot on	QPSK	7	20	20850	1	99	2850	7	20	21048	1	0	19.91	20.5	
			QPSK	7	20	21100	1	99	3100	7	20	21298	1	0	20.4	20.5	
			QPSK	7	20	21100	1	0	3100	7	20	20902	1	99	19.96	20.5	
			QPSK	7	20	21350	1	0	3350	7	20	21152	1	99	20.42	20.5	
	CA_7C	Hotspot on+Receiver off+SAR sensor on Level D1&D2	QPSK	7	20	20850	1	99	2850	7	20	21048	1	0	16.61	18	
			QPSK	7	20	21100	1	99	3100	7	20	21298	1	0	17.1	18	
			QPSK	7	20	21100	1	0	3100	7	20	20902	1	99	16.66	18	
			QPSK	7	20	21350	1	0	3350	7	20	21152	1	99	17.12	18	
	CA_7C	Hotspot on+Receiver off+SAR sensor on Level D3	QPSK	7	20	20850	1	99	2850	7	20	21048	1	0	17.74	19	
			QPSK	7	20	21100	1	99	3100	7	20	21298	1	0	18.06	19	
			QPSK	7	20	21100	1	0	3100	7	20	20902	1	99	17.77	19	
			QPSK	7	20	21350	1	0	3350	7	20	21152	1	99	18.12	19	
	Second Antenna	CA_38C	Receiver on	QPSK	38	20	37850	1	99	37850	38	20	38048	1	0	17.08	18.13
				QPSK	38	20	38150	1	0	38150	38	20	37952	1	99	17.15	18.13
		CA_38C	Receiver off	QPSK	38	20	37850	1	99	37850	38	20	38048	1	0	21.18	22.63
				QPSK	38	20	38150	1	0	38150	38	20	37952	1	99	21.14	22.63
Main	CA_38C	Receiver on/Receiver	QPSK	38	20	37850	1	99	37850	38	20	38048	1	0	22.88	23.63	

Antenna		off+SAR sensor on Level D3&D7	QPSK	38	20	38150	1	0	38150	38	20	37952	1	99	22.85	23.63	
	CA_38C	Receiver off+SAR sensor on Level D1&D2	QPSK	38	20	37850	1	99	37850	38	20	38048	1	0	22.19	22.63	
			QPSK	38	20	38150	1	0	38150	38	20	37952	1	99	22.16	22.63	
	CA_38C	Hotspot on+Receiver on/Hotspot on+Receiver off+SAR sensor on Level D3&D7	QPSK	38	20	37850	1	99	37850	38	20	38048	1	0	19.63	21.63	
			QPSK	38	20	38150	1	0	38150	38	20	37952	1	99	19.69	21.63	
	CA_38C	Hotspot on+Receiver off+SAR sensor on Level D1&D2	QPSK	38	20	37850	1	99	37850	38	20	38048	1	0	19.63	20.63	
			QPSK	38	20	38150	1	0	38150	38	20	37952	1	99	19.61	20.63	
	Second Antenna	CA_41C	Receiver off	QPSK	41	20	40140	1	99	40140	41	20	40338	1	0	21.55	22.13
				QPSK	41	20	40473	1	99	40473	41	20	40671	1	0	21.48	22.13
				QPSK	41	20	40473	1	0	40473	41	20	40275	1	99	21.51	22.13
				QPSK	41	20	40807	1	99	40807	41	20	41005	1	0	21.29	22.13
				QPSK	41	20	40807	1	0	40807	41	20	40609	1	99	21.33	22.13
QPSK				41	20	41140	1	0	41140	41	20	40942	1	99	21.32	22.13	
CA_41C		Receiver on	QPSK	41	20	40140	1	99	40140	41	20	40338	1	0	16.65	17.13	
			QPSK	41	20	40473	1	99	40473	41	20	40671	1	0	16.44	17.13	
			QPSK	41	20	40473	1	0	40473	41	20	40275	1	99	16.64	17.13	
			QPSK	41	20	40807	1	99	40807	41	20	41005	1	0	16.22	17.13	
			QPSK	41	20	40807	1	0	40807	41	20	40609	1	99	16.35	17.13	
			QPSK	41	20	41140	1	0	41140	41	20	40942	1	99	16.43	17.13	
Main Antenna	CA_41C	Receiver on/Receiver off+SAR sensor on Level D1&D2&D3&D7	QPSK	41	20	40140	1	99	40140	41	20	40338	1	0	21.57	22.63	
			QPSK	41	20	40473	1	99	40473	41	20	40671	1	0	21.84	22.63	
			QPSK	41	20	40473	1	0	40473	41	20	40275	1	99	21.69	22.63	
			QPSK	41	20	40807	1	99	40807	41	20	41005	1	0	21.74	22.63	
			QPSK	41	20	40807	1	0	40807	41	20	40609	1	99	21.83	22.63	
			QPSK	41	20	41140	1	0	41140	41	20	40942	1	99	21.96	22.63	
	CA_41C	Hotspot on+Receiver on/Hotspot on+Receiver off+SAR sensor on Level D1&D2&D3&D7	QPSK	41	20	40140	1	99	40140	41	20	40338	1	0	20.2	21.13	
			QPSK	41	20	40473	1	99	40473	41	20	40671	1	0	19.86	21.13	
			QPSK	41	20	40473	1	0	40473	41	20	40275	1	99	20.12	21.13	
			QPSK	41	20	40807	1	99	40807	41	20	41005	1	0	20.67	21.13	
			QPSK	41	20	40807	1	0	40807	41	20	40609	1	99	20.87	21.13	
			QPSK	41	20	41140	1	0	41140	41	20	40942	1	99	20.14	21.13	

Note: For uplink CA, additional SAR test is only required on the uplink CA configurations with 2 component carriers downlink. Additional SAR test is not required for uplink CA configurations with 3~4 component carriers downlink because the highest UL CA output power configuration with 3~4 component carriers downlink is $\frac{1}{4}$ dB higher than the same UL CA output power configuration with 2 component carriers downlink.

9.4 WLAN Mode

FCC

Wi-Fi 2.4G (REC On)		Channel /Frequency(MHz)	Maximum Output Power (dBm)	
Antenna	Mode		Tune-up	Meas.
Antenna 1	802.11b (1M)	1/2412	13.00	12.59
		2/2417	13.00	12.74
		3/2422	13.00	12.72
		4/2427	13.00	12.57
		5/2432	13.00	12.54
		6/2437	13.00	12.85
		7/2442	13.00	12.13
		8/2447	13.00	12.56
		9/2452	13.00	12.36
		10/2457	13.00	12.32
		11/2462	13.00	12.13
	802.11g (6M)	1/2412	11.50	10.60
		2/2417	11.50	10.68
		3/2422	13.00	12.22
		4/2427	13.00	12.09
		5/2432	13.00	12.08
		6/2437	13.00	12.18
		7/2442	13.00	12.05
		8/2447	13.00	12.07
		9/2452	13.00	12.00
		10/2457	10.00	9.15
		11/2462	8.50	7.08
	802.11n-HT20 (MCS0)	1/2412	11.50	10.02
		2/2417	11.50	10.12
		3/2422	13.00	11.67
		4/2427	13.00	11.65
		5/2432	13.00	11.72
		6/2437	13.00	11.81
		7/2442	13.00	11.75
		8/2447	13.00	11.73
		9/2452	13.00	11.59
		10/2457	10.00	8.70
		11/2462	8.50	6.57

	802.11n-HT40 (MCS0)	3/2422	7.00	5.04
		4/2427	8.50	6.60
		5/2432	13.00	11.68
		6/2437	13.00	12.53
		7/2442	8.00	6.02
		8/2447	7.00	5.09
		9/2452	6.50	4.56
		10/2457	8.00	6.08
		11/2462	8.00	6.09
Antenna 2	802.11b (1M)	1/2412	13.00	11.62
		2/2417	13.00	11.95
		3/2422	13.00	12.16
		4/2427	10.00	9.40
		5/2432	8.50	7.19
		6/2437	11.50	10.06
		7/2442	11.50	10.02
		8/2447	13.00	11.59
		9/2452	13.00	12.12
		10/2457	13.00	11.94
		11/2462	13.00	11.98
	802.11g (6M)	1/2412	13.00	11.83
		2/2417	13.00	12.02
		3/2422	13.00	12.28
		4/2427	10.00	9.24
		5/2432	8.50	7.03
		6/2437	7.00	5.61
		7/2442	8.50	7.12
		8/2447	13.00	12.31
		9/2452	13.00	12.25
		10/2457	8.00	6.56
		11/2462	7.00	5.52
	802.11n-HT20 (MCS0)	1/2412	6.50	5.08
		2/2417	8.00	6.62
		3/2422	8.00	6.58
		4/2427	13.00	11.62
		5/2432	13.00	11.95
		6/2437	13.00	12.16
		7/2442	10.00	9.40
		8/2447	8.50	7.19
		9/2452	11.50	10.06

802.11n-HT40 (MCS0)	10/2457	11.50	10.02
	11/2462	13.00	11.59
	3/2422	13.00	12.12
	4/2427	13.00	11.94
	5/2432	13.00	11.98
	6/2437	13.00	11.83
	7/2442	13.00	12.02
	8/2447	13.00	12.28
	9/2452	10.00	9.24
	10/2457	8.50	7.03
	11/2462	7.00	5.61

Wi-Fi 2.4G (REC On)		Maximum Output Power (dBm)					
Mode	Channel /Frequency(MHz)	MIMO		Ant1		Ant2	
		Tune-up	MIMO	Tune-up	Meas.	Tune-up	Meas.
802.11g (6M)	1/2412	14.51	13.28	11.50	10.60	11.50	9.91
	2/2417	14.51	13.34	11.50	10.68	11.50	9.94
	3/2422	16.01	14.90	13.00	12.22	13.00	11.53
	4/2427	16.01	14.81	13.00	12.09	13.00	11.49
	5/2432	16.01	14.93	13.00	12.08	13.00	11.75
	6/2437	16.01	15.01	13.00	12.18	13.00	11.82
	7/2442	16.01	14.85	13.00	12.05	13.00	11.62
	8/2447	16.01	15.02	13.00	12.07	13.00	11.95
	9/2452	16.01	15.09	13.00	12.00	13.00	12.16
	10/2457	13.01	12.29	10.00	9.15	10.00	9.40
	11/2462	11.51	10.15	8.50	7.08	8.50	7.19
802.11n-HT20 (MCS0)	1/2412	14.51	13.05	11.50	10.02	11.50	10.06
	2/2417	14.51	13.08	11.50	10.12	11.50	10.02
	3/2422	16.01	14.64	13.00	11.67	13.00	11.59
	4/2427	16.01	14.90	13.00	11.65	13.00	12.12
	5/2432	16.01	14.84	13.00	11.72	13.00	11.94
	6/2437	16.01	14.91	13.00	11.81	13.00	11.98
	7/2442	16.01	14.80	13.00	11.75	13.00	11.83
	8/2447	16.01	14.89	13.00	11.73	13.00	12.02
	9/2452	16.01	14.96	13.00	11.59	13.00	12.28
	10/2457	13.01	11.99	10.00	8.70	10.00	9.24
	11/2462	11.51	9.82	8.50	6.57	8.50	7.03
802.11n-HT40 (MCS0)	3/2422	10.01	8.34	7.00	5.04	7.00	5.61
	4/2427	11.51	9.88	8.50	6.60	8.50	7.12

	5/2432	16.01	15.02	13.00	11.68	13.00	12.31
	6/2437	16.01	15.06	13.00	11.83	13.00	12.25
	7/2442	11.01	9.31	8.00	6.02	8.00	6.56
	8/2447	10.01	8.32	7.00	5.09	7.00	5.52
	9/2452	9.51	7.84	6.50	4.56	6.50	5.08
	10/2457	11.01	9.37	8.00	6.08	8.00	6.62
	11/2462	11.01	9.35	8.00	6.09	8.00	6.58

Wi-Fi 2.4G (REC Off)		Channel /Frequency(MHz)	Maximum Output Power (dBm)	
Antenna	Mode		Tune-up	Meas.
Antenna 1	802.11b (1M)	1/2412	18.00	16.57
		2/2417	18.00	16.41
		3/2422	18.00	16.45
		4/2427	18.00	16.38
		5/2432	18.00	16.37
		6/2437	18.00	16.78
		7/2442	18.00	16.75
		8/2447	18.00	16.50
		9/2452	18.00	16.51
		10/2457	18.00	16.48
		11/2462	18.00	16.44
	802.11g (6M)	1/2412	11.50	10.22
		2/2417	11.50	10.23
		3/2422	18.00	16.28
		4/2427	18.00	16.33
		5/2432	18.00	16.35
		6/2437	18.00	16.42
		7/2442	18.00	16.35
		8/2447	18.00	16.18
		9/2452	18.00	16.13
		10/2457	10.00	8.70
		11/2462	8.50	6.83
	802.11n-HT20 (MCS0)	1/2412	11.50	9.69
		2/2417	11.50	9.74
		3/2422	17.00	15.10
		4/2427	17.00	15.11
		5/2432	17.00	15.12
		6/2437	17.00	15.13
		7/2442	17.00	15.09

		8/2447	17.00	15.13
		9/2452	17.00	15.14
		10/2457	10.00	8.30
		11/2462	8.50	6.75
	802.11n-HT40 (MCS0)	3/2422	7.00	5.12
		4/2427	8.50	6.73
		5/2432	15.50	13.71
		6/2437	15.50	13.61
		7/2442	8.00	6.08
		8/2447	7.00	5.03
		9/2452	6.50	4.55
		10/2457	8.00	6.16
		11/2462	8.00	6.13
		Antenna 2	802.11b (1M)	1/2412
2/2417	17.00			15.50
3/2422	17.00			15.18
4/2427	17.00			15.09
5/2432	17.00			15.12
6/2437	17.00			15.29
7/2442	17.00			15.30
8/2447	17.00			15.41
9/2452	17.00			15.85
10/2457	17.00			15.77
11/2462	17.00			15.16
802.11g (6M)	1/2412		11.50	9.92
	2/2417		11.50	9.94
	3/2422		17.00	15.37
	4/2427		17.00	15.27
	5/2432		17.00	15.44
	6/2437		17.00	15.84
	7/2442		17.00	15.37
	8/2447		17.00	15.69
	9/2452		17.00	15.83
	10/2457		10.00	9.06
11/2462	8.50		6.59	
802.11n-HT20 (MCS0)	1/2412		11.50	9.54
	2/2417		11.50	9.60
	3/2422	16.00	14.06	
	4/2427	16.00	14.03	
	5/2432	16.00	14.05	

		6/2437	16.00	14.18
		7/2442	16.00	14.02
		8/2447	16.00	14.43
		9/2452	16.00	14.75
		10/2457	10.00	8.69
		11/2462	8.50	6.57
	802.11n-HT40 (MCS0)	3/2422	7.00	5.09
		4/2427	8.50	6.62
		5/2432	14.50	12.57
		6/2437	14.50	12.66
		7/2442	8.00	6.03
		8/2447	7.00	5.06
		9/2452	6.50	4.55
		10/2457	8.00	6.10
		11/2462	8.00	6.08

Wi-Fi 2.4G (REC Off)		Maximum Output Power (dBm)					
Mode	Channel /Frequency(MHz)	MIMO		Ant1		Ant2	
		Tune-up	MIMO	Tune-up	Meas.	Tune-up	Meas.
802.11g (6M)	1/2412	14.51	13.08	11.50	10.22	11.50	9.92
	2/2417	14.51	13.10	11.50	10.23	11.50	9.94
	3/2422	20.54	18.86	18.00	16.28	17.00	15.37
	4/2427	20.54	18.84	18.00	16.33	17.00	15.27
	5/2432	20.54	18.93	18.00	16.35	17.00	15.44
	6/2437	20.54	19.15	18.00	16.42	17.00	15.84
	7/2442	20.54	18.90	18.00	16.35	17.00	15.37
	8/2447	20.54	18.95	18.00	16.18	17.00	15.69
	9/2452	20.54	18.99	18.00	16.13	17.00	15.83
	10/2457	13.01	11.89	10.00	8.70	10.00	9.06
	11/2462	11.51	9.72	8.50	6.83	8.50	6.59
802.11n-HT20 (MCS0)	1/2412	14.51	12.63	11.50	9.69	11.50	9.54
	2/2417	14.51	12.68	11.50	9.74	11.50	9.60
	3/2422	19.54	17.62	17.00	15.10	16.00	14.06
	4/2427	19.54	17.61	17.00	15.11	16.00	14.03
	5/2432	19.54	17.63	17.00	15.12	16.00	14.05
	6/2437	19.54	17.69	17.00	15.13	16.00	14.18
	7/2442	19.54	17.60	17.00	15.09	16.00	14.02
	8/2447	19.54	17.80	17.00	15.13	16.00	14.43
	9/2452	19.54	17.96	17.00	15.14	16.00	14.75

	10/2457	13.01	11.51	10.00	8.30	10.00	8.69
	11/2462	11.51	9.67	8.50	6.75	8.50	6.57
802.11n-HT40 (MCS0)	3/2422	10.01	8.12	7.00	5.12	7.00	5.09
	4/2427	11.51	9.69	8.50	6.73	8.50	6.62
	5/2432	18.04	16.19	15.50	13.71	14.50	12.57
	6/2437	18.04	16.17	15.50	13.61	14.50	12.66
	7/2442	11.01	9.07	8.00	6.08	8.00	6.03
	8/2447	10.01	8.06	7.00	5.03	7.00	5.06
	9/2452	9.51	7.56	6.50	4.55	6.50	4.55
	10/2457	11.01	9.14	8.00	6.16	8.00	6.10
	11/2462	11.01	9.12	8.00	6.13	8.00	6.08

Wi-Fi 5G (U-NII-1) (REC On)		Channel /Frequency(MHz)	Maximum Output Power (dBm)	
Antenna	Mode		Tune-up	Meas.
Antenna 1	802.11a (6M)	36/5180	10.50	9.03
		40/5200	12.00	11.93
		44/5220	12.00	11.08
		48/5240	12.00	11.05
	802.11n-HT20 (MCS0)	36/5180	10.50	8.91
		40/5200	12.00	11.05
		44/5220	12.00	10.24
		48/5240	12.00	10.48
	802.11n-HT40 (MCS0)	38/5190	9.50	8.22
		46/5230	12.00	11.45
	802.11ac-VHT20 (6M)	36/5180	10.50	8.96
		40/5200	12.00	11.02
		44/5220	12.00	10.22
		48/5240	12.00	10.48
	802.11ac-VHT40 (MCS0)	38/5190	9.50	8.18
		46/5230	12.00	10.56
802.11ac-VHT80 (MCS0)	42/5210	6.50	5.01	
802.11ac-VHT160 (MCS0)	50/5250	6.50	5.25	
Antenna 2	802.11a (6M)	36/5180	10.50	10.33
		40/5200	12.00	10.98
		44/5220	12.00	11.07
		48/5240	12.00	11.05
	802.11n-HT20	36/5180	10.50	9.98

	(MCS0)	40/5200	12.00	11.12
		44/5220	12.00	11.32
		48/5240	12.00	11.09
	802.11n-HT40 (MCS0)	38/5190	9.50	9.34
		46/5230	12.00	11.01
	802.11ac-VHT20 (6M)	36/5180	10.50	9.97
		40/5200	12.00	11.30
		44/5220	12.00	11.16
		48/5240	12.00	11.08
	802.11ac-VHT40 (MCS0)	38/5190	9.50	8.34
		46/5230	12.00	11.17
	802.11ac-VHT80 (MCS0)	42/5210	6.50	5.16
	802.11ac-VHT160 (MCS0)	50/5250	6.50	5.28

Wi-Fi 5G (U-NII-1) (REC On)		Channel /Frequency(MHz)	Maximum Output Power (dBm)			
Antenna	Mode		Tune-up	ANT 1 Meas.	ANT 2 Meas	Total
CDD/ MIMO	802.11a (6M)	36/5180	13.50	9.03	10.33	12.74
		40/5200	15.00	11.93	10.98	14.49
		44/5220	15.00	11.08	11.07	14.09
		48/5240	15.00	11.05	11.05	14.06
	802.11n-HT20 (MCS0)	36/5180	13.50	8.91	9.98	12.49
		40/5200	15.00	11.05	11.12	14.10
		44/5220	15.00	10.24	11.32	13.82
		48/5240	15.00	10.48	11.09	13.81
	802.11n-HT40 (MCS0)	38/5190	12.50	8.22	9.34	11.83
		46/5230	15.00	11.45	11.01	14.25
	802.11ac-VHT20 (6M)	36/5180	13.50	8.96	9.97	12.50
		40/5200	15.00	11.02	11.30	14.17
		44/5220	15.00	10.22	11.16	13.73
		48/5240	15.00	10.48	11.08	13.80
	802.11ac-VHT40 (MCS0)	38/5190	12.50	8.18	8.34	11.27
		46/5230	15.00	10.56	11.17	13.89
	802.11ac-VHT80 (MCS0)	42/5210	9.50	5.01	5.16	8.10
	802.11ac-VHT160 (MCS0)	50/5250	9.50	5.25	5.28	8.28

Wi-Fi 5G (U-NII-2A) (REC On)		Channel /Frequency(MHz)	Maximum Output Power (dBm)	
Antenna	Mode		Tune-up	Meas.
Antenna 1	802.11a (6M)	52/5260	12.00	11.47
		56/5280	12.00	11.31
		60/5300	12.00	11.54
		64/5320	10.50	8.89
	802.11n-HT20 (MCS0)	52/5260	12.00	10.57
		56/5280	12.00	10.74
		60/5300	12.00	10.89
		64/5320	10.50	8.76
	802.11n-HT40 (MCS0)	54/5270	12.00	11.61
		62/5310	9.00	7.46
	802.11ac-VHT20 (6M)	52/5260	12.00	10.55
		56/5280	12.00	10.76
		60/5300	12.00	10.89
		64/5320	10.50	9.07
	802.11ac-VHT40 (MCS0)	54/5270	12.00	10.87
		62/5310	9.00	7.45
802.11ac-VHT80 (MCS0)	58/5290	6.50	5.88	
Antenna 2	802.11a (6M)	52/5260	12.00	10.46
		56/5280	12.00	10.30
		60/5300	12.00	10.67
		64/5320	10.50	10.06
	802.11n-HT20 (MCS0)	52/5260	12.00	11.26
		56/5280	12.00	11.12
		60/5300	12.00	11.09
		64/5320	10.50	9.13
	802.11n-HT40 (MCS0)	54/5270	12.00	11.77
		62/5310	9.00	7.27
	802.11ac-VHT20 (6M)	52/5260	12.00	11.56
		56/5280	12.00	11.53
		60/5300	12.00	11.24
		64/5320	10.50	8.62
	802.11ac-VHT40 (MCS0)	54/5270	12.00	11.67
		62/5310	9.00	7.41
802.11ac-VHT80 (MCS0)	58/5290	6.50	5.73	

Note. Initial test configuration is 802.11n-HT40 mode, since the highest maximum output power.

Wi-Fi 5G (U-NII-2A) (REC On)		Channel /Frequency(MHz)	Maximum Output Power (dBm)			
Antenna	Mode		Tune-up	ANT 1 Meas.	ANT 2 Meas	Total
CDD/ MIMO	802.11a (6M)	52/5260	15.00	11.47	10.46	14.00
		56/5280	15.00	11.31	10.30	13.84
		60/5300	15.00	11.69	10.67	14.22
		64/5320	13.50	8.89	10.06	12.52
	802.11n-HT20 (MCS0)	52/5260	15.00	10.57	11.26	13.94
		56/5280	15.00	10.74	11.12	13.94
		60/5300	15.00	10.89	11.09	14.00
		64/5320	13.50	8.76	9.13	11.96
	802.11n-HT40 (MCS0)	54/5270	15.00	11.30	11.77	14.55
		62/5310	12.00	7.46	7.27	10.38
	802.11ac-VHT20 (6M)	52/5260	15.00	10.55	11.56	14.09
		56/5280	15.00	10.76	11.53	14.17
		60/5300	15.00	10.89	11.24	14.08
		64/5320	13.50	9.07	8.62	11.86
	802.11ac-VHT40 (MCS0)	54/5270	15.00	10.87	11.94	14.45
		62/5310	12.00	7.45	7.41	10.44
802.11ac-VHT80 (MCS0)	58/5290	9.50	5.88	5.73	8.82	

Wi-Fi 5G (U-NII-2C) (REC On)		Channel /Frequency(MHz)	Maximum Output Power (dBm)	
Antenna	Mode		Tune-up	Meas.
Antenna 1	802.11a (6M)	100/5500	10.50	9.56
		104/5520	12.00	10.88
		108/5540	12.00	10.73
		112/5560	12.00	10.74
		116/5580	12.00	10.61
		120/5600	12.00	10.78
		124/5620	12.00	10.81
		128/5640	12.00	10.71
		132/5660	12.00	11.15
		136/5680	12.00	11.40
		140/5700	11.00	10.52
	802.11n-HT20 (MCS0)	100/5500	10.50	9.35
		104/5520	12.00	11.10
		108/5540	12.00	11.08

		112/5560	12.00	11.01	
		116/5580	12.00	11.19	
		120/5600	12.00	11.11	
		124/5620	12.00	11.05	
		128/5640	12.00	10.97	
		132/5660	12.00	11.26	
		136/5680	12.00	11.24	
		140/5700	11.00	9.94	
	802.11n-HT40 (MCS0)	102/5510	9.50	8.53	
		110/5550	12.00	11.12	
		118/5590	12.00	11.61	
		126/5630	12.00	10.78	
		134/5670	9.50	8.46	
	802.11ac-VHT20 (6M)	100/5500	10.50	9.84	
		104/5520	12.00	10.62	
		108/5540	12.00	10.56	
		112/5560	12.00	11.19	
		116/5580	12.00	11.18	
		120/5600	12.00	11.11	
		124/5620	12.00	11.01	
		128/5640	12.00	10.90	
		132/5660	12.00	11.22	
		136/5680	12.00	11.21	
	802.11ac-VHT40 (MCS0)	140/5700	11.00	9.94	
		102/5510	9.50	8.07	
		110/5550	12.00	10.77	
		118/5590	12.00	11.38	
		126/5630	12.00	11.17	
	802.11ac-VHT80 (MCS0)	134/5670	9.50	8.51	
		106/5530	6.50	5.03	
	802.11ac-VHT160 (MCS0)	122/5610	6.50	5.42	
		114/5570	6.50	5.12	
	Antenna 2	802.11a (6M)	100/5500	10.50	9.53
			104/5520	12.00	11.45
			108/5540	12.00	11.33
112/5560			12.00	11.20	
116/5580			12.00	11.24	
120/5600			12.00	11.18	
124/5620			12.00	11.15	

		128/5640	12.00	11.18
		132/5660	12.00	11.16
		136/5680	12.00	11.17
		140/5700	11.00	9.58
	802.11n-HT20 (MCS0)	100/5500	10.50	9.16
		104/5520	12.00	10.86
		108/5540	12.00	11.65
		112/5560	12.00	11.79
		116/5580	12.00	10.68
		120/5600	12.00	10.69
		124/5620	12.00	10.85
		128/5640	12.00	11.11
		132/5660	12.00	11.82
		136/5680	12.00	11.76
		140/5700	11.00	10.23
		802.11n-HT40 (MCS0)	102/5510	9.50
	110/5550		12.00	10.98
	118/5590		12.00	11.73
	126/5630		12.00	11.07
	134/5670		9.50	9.05
	802.11ac-VHT20 (6M)	100/5500	10.50	9.33
		104/5520	12.00	10.86
		108/5540	12.00	10.83
		112/5560	12.00	10.79
		116/5580	12.00	10.76
		120/5600	12.00	10.69
		124/5620	12.00	10.85
		128/5640	12.00	10.83
		132/5660	12.00	11.80
		136/5680	12.00	11.77
		140/5700	11.00	10.21
	802.11ac-VHT40 (MCS0)	102/5510	9.50	8.50
		110/5550	12.00	10.75
		118/5590	12.00	10.63
		126/5630	12.00	10.67
		134/5670	9.50	9.10
	802.11ac-VHT80 (MCS0)	106/5530	6.50	5.63
		122/5610	6.50	4.93
	802.11ac-VHT160 (MCS0)	114/5570	6.50	6.48

Note. Initial test configuration is 802.11n-HT40 mode, since the highest maximum output power.

Wi-Fi 5G (U-NII-2C) (REC On)		Channel /Frequency(MHz)	Maximum Output Power (dBm)			
Antenna	Mode		Tune-up	ANT 1 Meas.	ANT 2 Meas	Total
CDD /MIMO	802.11a (6M)	100/5500	13.5	9.56	9.53	12.56
		104/5520	15.0	10.88	11.45	14.18
		108/5540	15.0	10.73	11.33	14.05
		112/5560	15.0	10.74	11.20	13.99
		116/5580	15.0	10.61	11.24	13.95
		120/5600	15.0	10.78	11.18	13.99
		124/5620	15.0	10.81	11.15	13.99
		128/5640	15.0	10.71	11.18	13.96
		132/5660	15.0	11.55	11.16	14.37
		136/5680	15.0	11.40	11.17	14.30
		140/5700	14.0	10.52	9.58	13.09
	802.11n-HT20 (MCS0)	100/5500	13.5	9.35	9.16	12.27
		104/5520	15.0	11.10	10.86	13.99
		108/5540	15.0	11.08	11.85	14.49
		112/5560	15.0	11.01	11.79	14.43
		116/5580	15.0	11.19	10.68	13.95
		120/5600	15.0	11.11	10.69	13.92
		124/5620	15.0	11.05	10.85	13.96
		128/5640	15.0	10.97	11.11	14.05
		132/5660	15.0	11.26	11.82	14.56
		136/5680	15.0	11.24	11.76	14.52
		140/5700	14.0	9.94	10.23	13.10
	802.11n-HT40 (MCS0)	102/5510	12.5	8.53	8.64	11.60
		110/5550	15.0	11.22	10.98	14.11
		118/5590	15.0	10.96	10.83	13.91
		126/5630	15.0	10.78	11.07	13.94
		134/5670	12.5	8.46	9.05	11.78
	802.11ac-VHT20 (6M)	100/5500	13.5	9.84	9.33	12.60
		104/5520	15.0	10.62	10.86	13.75
		108/5540	15.0	10.56	10.83	13.71
		112/5560	15.0	11.49	10.79	14.16
		116/5580	15.0	11.18	10.76	13.99
		120/5600	15.0	11.11	10.69	13.92
		124/5620	15.0	11.01	10.85	13.94
	128/5640	15.0	10.90	10.83	13.88	

		132/5660	15.0	11.22	11.80	14.53
		136/5680	15.0	11.21	11.77	14.51
		140/5700	14.0	9.94	10.21	13.09
	802.11ac-VHT40 (MCS0)	102/5510	12.5	8.07	8.50	11.30
		110/5550	15.0	10.77	10.75	13.77
		118/5590	15.0	11.38	10.63	14.03
		126/5630	15.0	11.17	10.67	13.94
		134/5670	12.5	8.51	9.10	11.83
	802.11ac-VHT80 (MCS0)	106/5530	9.5	5.03	5.63	8.35
		122/5610	9.5	5.42	4.93	8.19
	802.11ac-VHT160 (MCS0)	114/5570	9.5	5.12	6.48	8.86

Wi-Fi 5G (U-NII-3) (REC On)		Channel /Frequency(MHz)	Maximum Output Power (dBm)	
Antenna	Mode		Tune-up	Meas.
Antenna 1	802.11a (6M)	149/5745	11.5	10.74
		153/5760	12.0	10.90
		157/5785	12.0	11.06
		161/5800	12.0	11.29
		165/5825	11.5	10.54
	802.11n-HT20 (MCS0)	149/5745	11.5	10.53
		153/5760	12.0	10.91
		157/5785	12.0	10.92
		161/5800	12.0	10.95
		165/5825	11.5	9.67
	802.11n-HT40 (MCS0)	151/5755	12.0	11.08
		159/5795	12.0	11.46
	802.11ac-VHT20 (6M)	149/5745	11.5	10.51
		153/5760	12.0	10.84
		157/5785	12.0	10.90
		161/5800	12.0	10.89
		165/5825	11.5	10.17
	802.11ac-VHT40 (MCS0)	151/5755	12.0	11.20
		159/5795	12.0	11.26
	802.11ac-VHT80 (MCS0)	155/5775	11.5	10.25
Antenna 2	802.11a (6M)	149/5745	11.5	11.32
		153/5760	12.0	11.36
		157/5785	12.0	11.63

		161/5800	12.0	11.68
		165/5825	11.5	10.81
	802.11n-HT20 (MCS0)	149/5745	11.5	10.88
		153/5760	12.0	10.95
		157/5785	12.0	11.11
		161/5800	12.0	11.35
		165/5825	11.5	10.52
	802.11n-HT40 (MCS0)	151/5755	12.0	10.89
		159/5795	12.0	11.36
	802.11ac-VHT20 (6M)	149/5745	11.5	10.98
		153/5760	12.0	10.91
		157/5785	12.0	11.10
		161/5800	12.0	11.26
		165/5825	11.5	11.37
	802.11ac-VHT40 (MCS0)	151/5755	12.0	10.69
		159/5795	12.0	10.94
	802.11ac-VHT80 (MCS0)	155/5775	11.5	10.69

Note. Initial test configuration is 802.11n-HT40 mode, since the highest maximum output power.

Wi-Fi 5G (U-NII-3) (REC On)		Channel /Frequency(MHz)	Maximum Output Power (dBm)			
Antenna	Mode		Tune-up	ANT 1 Meas.	ANT 2 Meas	Total
CDD/ MIMO	802.11a (6M)	149/5745	14.5	10.74	11.32	14.05
		153/5760	15.0	10.90	11.36	14.15
		157/5785	15.0	11.06	11.63	14.36
		161/5800	15.0	11.29	11.68	14.50
		165/5825	14.5	10.54	10.81	13.69
	802.11n-HT20 (MCS0)	149/5745	14.5	10.53	10.88	13.72
		153/5760	15.0	10.91	10.95	13.94
		157/5785	15.0	10.92	11.11	14.03
		161/5800	15.0	10.95	11.35	14.16
		165/5825	14.5	9.67	10.52	13.13
	802.11n-HT40 (MCS0)	151/5755	15.0	11.08	10.89	14.00
		159/5795	15.0	11.46	11.36	14.42
	802.11ac-VHT20 (6M)	149/5745	14.5	10.51	10.98	13.76
		153/5760	15.0	10.84	10.91	13.89
		157/5785	15.0	10.90	11.10	14.01
		161/5800	15.0	10.89	11.26	14.09
		165/5825	14.5	10.17	11.37	13.82

	802.11ac-VHT40 (MCS0)	151/5755	15.0	11.20	10.69	13.96
		159/5795	15.0	11.26	10.94	14.11
	802.11ac-VHT80 (MCS0)	155/5775	14.5	10.25	10.69	13.49

Wi-Fi 5G (U-NII-1) (REC Off)		Channel /Frequency(MHz)	Maximum Output Power (dBm)	
Antenna	Mode		Tune-up	Meas.
Antenna 1	802.11a (6M)	36/5180	10.5	9.84
		40/5200	16.0	15.35
		44/5220	16.0	15.67
		48/5240	16.0	15.50
	802.11n-HT20 (MCS0)	36/5180	10.5	8.94
		40/5200	16.0	14.85
		44/5220	16.0	15.11
		48/5240	16.0	15.19
	802.11n-HT40 (MCS0)	38/5190	9.5	8.44
		46/5230	15.5	14.61
	802.11ac-VHT20 (6M)	36/5180	10.5	9.01
		40/5200	16.0	14.89
		44/5220	16.0	15.1
	802.11ac-VHT40 (MCS0)	48/5240	16.0	15.04
		38/5190	9.5	8.44
	802.11ac-VHT80 (MCS0)	46/5230	15.5	14.61
42/5210		6.5	5.25	
802.11ac-VHT160 (MCS0)	50/5250	6.5	5.54	
Antenna 2	802.11a (6M)	36/5180	10.5	10.15
		40/5200	15.5	14.68
		44/5220	15.5	14.70
		48/5240	15.5	14.44
	802.11n-HT20 (MCS0)	36/5180	10.5	9.72
		40/5200	15.5	14.31
		44/5220	15.5	14.26
	802.11n-HT40 (MCS0)	48/5240	15.5	14.16
		38/5190	9.5	8.92
	802.11ac-VHT20 (6M)	46/5230	15.0	13.75
		36/5180	10.5	9.27
40/5200	15.5	14.88		

		44/5220	15.5	14.87
		48/5240	15.5	14.41
	802.11ac-VHT40 (MCS0)	38/5190	9.5	9.25
		46/5230	15.0	14.26
	802.11ac-VHT80 (MCS0)	42/5210	6.5	5.94
	802.11ac-VHT160 (MCS0)	50/5250	6.5	5.03

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

Wi-Fi 5G (U-NII-1) (REC Off)		Channel /Frequency(MHz)	Maximum Output Power (dBm)			
Antenna	Mode		Tune-up	ANT 1 Meas.	ANT 2 Meas	Total
CDD/ MIMO	802.11a (6M)	36/5180	13.5	9.84	10.75	13.33
		40/5200	18.8	15.35	15.28	18.33
		44/5220	18.8	15.27	15.30	18.30
		48/5240	18.8	15.50	15.04	18.29
	802.11n-HT20 (MCS0)	36/5180	13.5	8.94	10.32	12.69
		40/5200	18.8	14.85	14.91	17.89
		44/5220	18.8	15.11	14.86	18.00
		48/5240	18.8	15.19	14.76	17.99
	802.11n-HT40 (MCS0)	38/5190	12.5	8.44	9.52	12.02
		46/5230	18.3	14.61	14.35	17.49
	802.11ac-VHT20 (6M)	36/5180	13.5	9.01	9.27	12.15
		40/5200	18.8	14.89	14.88	17.90
		44/5220	18.8	15.1	14.87	18.00
		48/5240	18.8	15.04	14.41	17.75
	802.11ac-VHT40 (MCS0)	38/5190	12.5	8.44	9.25	11.87
		46/5230	18.3	14.61	14.26	17.45
	802.11ac-VHT80 (MCS0)	42/5210	9.5	5.25	6.54	8.95
	802.11ac-VHT160 (MCS0)	50/5250	9.5	5.54	5.63	8.60

Wi-Fi 5G (U-NII-2A) (REC Off)		Channel /Frequency(MHz)	Maximum Output Power (dBm)	
Antenna	Mode		Tune-up	Meas.
Antenna 1	802.11a (6M)	52/5260	16.0	15.65
		56/5280	16.0	15.58
		60/5300	16.0	15.27

	802.11n-HT20 (MCS0)	64/5320	10.5	9.46	
		52/5260	16.0	15.07	
		56/5280	16.0	15.06	
		60/5300	16.0	14.71	
		64/5320	10.5	9.07	
	802.11n-HT40 (MCS0)	54/5270	15.5	14.61	
		62/5310	9.0	8.02	
	802.11ac-VHT20 (6M)	52/5260	16.0	15.09	
		56/5280	16.0	14.69	
		60/5300	16.0	14.76	
		64/5320	10.5	9.04	
	802.11ac-VHT40 (MCS0)	54/5270	15.5	14.56	
		62/5310	9.0	7.05	
802.11ac-VHT80 (MCS0)	58/5290	6.5	5.74		
Antenna 2	802.11a (6M)	52/5260	15.5	15.03	
		56/5280	15.5	15.07	
		60/5300	15.5	15.09	
		64/5320	10.5	9.38	
	802.11n-HT20 (MCS0)	52/5260	15.5	14.33	
		56/5280	15.5	14.06	
		60/5300	15.5	13.85	
		64/5320	10.5	9.41	
	802.11n-HT40 (MCS0)	54/5270	15.0	13.54	
		62/5310	9.0	7.78	
	802.11ac-VHT20 (6M)	52/5260	15.5	14.36	
		56/5280	15.5	14.04	
		60/5300	15.5	13.82	
		64/5320	10.5	9.31	
	802.11ac-VHT40 (MCS0)	54/5270	15.0	13.71	
		62/5310	9.0	7.72	
	802.11ac-VHT80 (MCS0)	58/5290	6.5	5.36	
	Note. Initial test configuration is 802.11a mode, since the highest maximum output power.				

Wi-Fi 5G (U-NII-2A) (REC Off)		Channel /Frequency(MHz)	Maximum Output Power (dBm)			
Antenna	Mode		Tune-up	ANT 1 Meas.	ANT 2 Meas	Total
CDD/ MIMO	802.11a (6M)	52/5260	18.8	15.65	15.13	18.41
		56/5280	18.8	15.58	14.61	18.13

		60/5300	18.8	15.27	14.39	17.86
		64/5320	13.5	9.46	9.38	12.43
	802.11n-HT20 (MCS0)	52/5260	18.8	15.07	14.33	17.73
		56/5280	18.8	15.06	14.06	17.60
		60/5300	18.8	14.71	13.85	17.31
		64/5320	13.5	9.07	9.41	12.25
	802.11n-HT40 (MCS0)	54/5270	18.3	14.61	13.54	17.12
		62/5310	12.0	7.02	7.78	10.43
	802.11ac-VHT20 (6M)	52/5260	18.8	15.09	14.36	17.75
		56/5280	18.8	14.69	14.04	17.39
		60/5300	18.8	14.76	13.82	17.33
		64/5320	13.5	9.04	9.31	12.19
	802.11ac-VHT40 (MCS0)	54/5270	18.3	14.56	13.71	17.17
		62/5310	12.0	7.05	7.72	10.41
	802.11ac-VHT80 (MCS0)	58/5290	9.5	5.74	4.56	8.20

Wi-Fi 5G (U-NII-2C) (REC Off)		Channel /Frequency(MHz)	Maximum Output Power (dBm)	
Antenna	Mode		Tune-up	Meas.
Antenna 1	802.11a (6M)	100/5500	10.5	9.27
		104/5520	16.0	14.44
		108/5540	16.0	14.35
		112/5560	16.0	14.70
		116/5580	16.0	14.78
		120/5600	16.0	14.69
		124/5620	16.0	14.71
		128/5640	16.0	14.73
		132/5660	16.0	14.72
		136/5680	16.0	14.60
	140/5700	11.0	10.82	
	802.11n-HT20 (MCS0)	100/5500	10.5	9.15
		104/5520	16.0	14.95
		108/5540	16.0	14.93
		112/5560	16.0	14.94
		116/5580	16.0	14.79
		120/5600	16.0	14.84
		124/5620	16.0	14.77
128/5640		16.0	14.34	
132/5660	16.0	15.14		

		136/5680	16.0	15.12
		140/5700	11.0	9.54
	802.11n-HT40 (MCS0)	102/5510	9.5	8.24
		110/5550	15.5	14.24
		118/5590	15.5	14.42
		126/5630	15.5	13.69
		134/5670	9.5	7.78
		100/5500	10.5	9.05
	802.11ac-VHT20 (6M)	104/5520	16.0	14.94
		108/5540	16.0	14.84
		112/5560	16.0	14.98
		116/5580	16.0	14.97
		120/5600	16.0	14.93
		124/5620	16.0	15.24
		128/5640	16.0	14.46
		132/5660	16.0	15.04
		136/5680	16.0	15.06
		140/5700	11.0	9.68
	802.11ac-VHT40 (MCS0)	102/5510	9.5	8.49
		110/5550	15.5	14.26
		118/5590	15.5	14.40
		126/5630	15.5	14.38
		134/5670	9.5	7.82
	802.11ac-VHT80 (MCS0)	106/5530	6.5	5.23
		122/5610	6.5	5.30
	802.11ac-VHT160 (MCS0)	114/5570	6.5	5.57
		100/5500	10.5	9.54
Antenna 2	802.11a (6M)	104/5520	15.5	14.10
		108/5540	15.5	14.18
		112/5560	15.5	14.37
		116/5580	15.5	14.49
		120/5600	15.5	14.72
		124/5620	15.5	14.74
		128/5640	15.5	14.72
		132/5660	15.5	14.78
		136/5680	15.5	14.86
		140/5700	11.0	10.63
	802.11n-HT20 (MCS0)	100/5500	10.5	9.08
		104/5520	15.5	14.79

		108/5540	15.5	14.78
		112/5560	15.5	14.86
		116/5580	15.5	14.93
		120/5600	15.5	14.64
		124/5620	15.5	14.73
		128/5640	15.5	14.50
		132/5660	15.5	14.46
		136/5680	15.5	14.36
		140/5700	11.0	10.24
	802.11n-HT40 (MCS0)	102/5510	9.5	8.18
		110/5550	15.0	13.39
		118/5590	15.0	13.64
		126/5630	15.0	13.96
		134/5670	9.5	8.97
	802.11ac-VHT20 (6M)	100/5500	10.5	8.91
		104/5520	15.5	14.65
		108/5540	15.5	14.59
		112/5560	15.5	14.63
		116/5580	15.5	14.90
		120/5600	15.5	14.24
		124/5620	15.5	14.26
		128/5640	15.5	14.35
		132/5660	15.5	14.34
		136/5680	15.5	14.32
		140/5700	11.0	10.32
	802.11ac-VHT40 (MCS0)	102/5510	9.5	7.94
		110/5550	15.0	13.16
		118/5590	15.0	13.36
		126/5630	15.0	13.79
		134/5670	9.5	8.67
	802.11ac-VHT80 (MCS0)	106/5530	6.5	4.77
		122/5610	6.5	5.31
	802.11ac-VHT160 (MCS0)	114/5570	6.5	5.21

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

Wi-Fi 5G (U-NII-2C) (REC Off)		Channel /Frequency(MHz)	Maximum Output Power (dBm)			
Antenna	Mode		Tune-up	ANT 1 Meas.	ANT 2 Meas	Total
CDD/ MIMO	802.11a	100/5500	13.5	9.27	9.54	12.42

	(6M)	104/5520	18.8	14.44	14.10	17.28
		108/5540	18.8	14.35	14.18	17.28
		112/5560	18.8	14.70	14.37	17.55
		116/5580	18.8	14.58	14.49	17.55
		120/5600	18.8	14.69	14.72	17.72
		124/5620	18.8	14.81	14.74	17.79
		128/5640	18.8	14.83	14.92	17.89
		132/5660	18.8	14.72	14.88	17.81
		136/5680	18.8	15.70	14.86	18.31
		140/5700	14.0	10.82	10.63	13.74
	802.11n-HT20 (MCS0)	100/5500	13.5	9.15	9.08	12.13
		104/5520	18.8	14.95	14.79	17.88
		108/5540	18.8	14.93	14.78	17.87
		112/5560	18.8	14.94	14.86	17.91
		116/5580	18.8	14.09	14.93	17.54
		120/5600	18.8	14.14	15.24	17.74
		124/5620	18.8	14.27	15.33	17.84
		128/5640	18.8	14.34	14.50	17.43
		132/5660	18.8	15.14	14.46	17.82
		136/5680	18.8	15.12	14.36	17.77
	140/5700	14.0	9.54	10.24	12.91	
	802.11n-HT40 (MCS0)	102/5510	12.5	7.64	8.18	10.93
		110/5550	18.3	14.24	13.39	16.85
		118/5590	18.3	14.42	13.64	17.06
		126/5630	18.3	13.69	13.96	16.84
		134/5670	12.5	7.78	8.97	11.43
	802.11ac-VHT20 (6M)	100/5500	13.5	9.05	8.91	11.99
		104/5520	18.8	14.94	14.65	17.81
		108/5540	18.8	14.84	14.59	17.73
		112/5560	18.8	14.98	14.63	17.82
		116/5580	18.8	14.97	14.90	17.95
		120/5600	18.8	14.93	14.24	17.61
		124/5620	18.8	14.24	14.26	17.26
		128/5640	18.8	14.46	14.35	17.42
		132/5660	18.8	15.04	14.34	17.71
		136/5680	18.8	15.06	14.32	17.72
	140/5700	14.0	9.68	10.32	13.02	
	802.11ac-VHT40 (MCS0)	102/5510	12.5	8.49	7.94	11.23
		110/5550	18.3	14.26	13.16	16.76
		118/5590	18.3	14.40	13.36	16.92

		126/5630	18.3	13.68	13.79	16.75
		134/5670	12.5	7.82	8.67	11.28
	802.11ac-VHT80 (MCS0)	106/5530	9.5	5.23	4.77	8.02
		122/5610	9.5	5.30	5.31	8.32
	802.11ac-VHT160 (MCS0)	114/5570	9.5	5.57	5.21	8.40

Wi-Fi 5G (U-NII-3) (REC Off)		Channel /Frequency(MHz)	Maximum Output Power (dBm)	
Antenna	Mode		Tune-up	Meas.
Antenna 1	802.11a (6M)	149/5745	11.5	11.44
		153/5760	16.0	15.56
		157/5785	16.0	15.90
		161/5800	16.0	15.89
		165/5825	11.5	11.46
	802.11n-HT20 (MCS0)	149/5745	11.5	10.92
		153/5760	16.0	14.94
		157/5785	16.0	15.25
		161/5800	16.0	15.42
		165/5825	11.5	10.75
	802.11n-HT40 (MCS0)	151/5755	15.5	14.46
		159/5795	15.5	14.57
	802.11ac-VHT20 (6M)	149/5745	11.5	10.87
		153/5760	16.0	14.99
		157/5785	16.0	15.26
		161/5800	16.0	15.40
		165/5825	11.5	11.04
	802.11ac-VHT40 (MCS0)	151/5755	15.5	14.48
		159/5795	15.5	13.85
	802.11ac-VHT80 (MCS0)	155/5775	11.5	9.83
Antenna 2	802.11a (6M)	149/5745	11.5	10.98
		153/5760	15.5	15.19
		157/5785	15.5	15.24
		161/5800	15.5	15.28
		165/5825	11.5	11.17
	802.11n-HT20 (MCS0)	149/5745	11.5	10.46
		153/5760	15.5	14.56
		157/5785	15.5	14.93
161/5800	15.5	15.06		

	802.11n-HT40 (MCS0)	165/5825	11.5	10.73
		151/5755	15.0	14.06
	802.11ac-VHT20 (6M)	159/5795	15.0	14.31
		149/5745	11.5	10.45
		153/5760	15.5	14.67
		157/5785	15.5	14.91
		161/5800	15.5	15.11
	802.11ac-VHT40 (MCS0)	165/5825	11.5	11.09
		151/5755	15.0	14.05
	802.11ac-VHT80 (MCS0)	159/5795	15.0	13.98
		155/5775	11.5	9.91

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

Wi-Fi 5G (U-NII-3) (REC Off)		Channel /Frequency(MHz)	Maximum Output Power (dBm)			
Antenna	Mode		Tune-up	ANT 1 Meas.	ANT 2 Meas	Total
CDD/ MIMO	802.11a (6M)	149/5745	17.3	11.44	10.98	14.23
		153/5760	18.8	15.56	15.19	18.39
		157/5785	18.8	15.79	15.24	18.53
		161/5800	18.8	15.89	15.28	18.61
		165/5825	16.6	11.46	11.17	14.33
	802.11n-HT20 (MCS0)	149/5745	17.3	10.92	10.46	13.71
		153/5760	18.8	14.94	14.56	17.76
		157/5785	18.8	15.25	14.93	18.10
		161/5800	18.8	15.42	15.06	18.25
		165/5825	16.6	10.75	10.73	13.75
	802.11n-HT40 (MCS0)	151/5755	18.3	14.46	14.06	17.27
		159/5795	17.8	14.57	14.31	17.45
	802.11ac-VHT20 (6M)	149/5745	17.3	10.87	10.45	13.68
		153/5760	18.8	14.99	14.67	17.84
		157/5785	18.8	15.26	14.91	18.10
		161/5800	18.8	15.40	15.11	18.27
		165/5825	16.6	11.04	11.09	14.08
	802.11ac-VHT40 (MCS0)	151/5755	18.3	14.48	14.05	17.28
		159/5795	17.8	13.85	13.98	16.93
	802.11ac-VHT80 (MCS0)	155/5775	14.5	9.83	9.91	12.88

CE

Wi-Fi 2.4G (REC On)		Channel /Frequency(MHz)	Maximum Output Power (dBm)	
			Tune-up	Meas.
Antenna	Mode			
Antenna 1	802.11b (1M)	1/2412	15.50	14.39
		2/2417	15.50	14.54
		3/2422	15.50	14.52
		4/2427	15.50	14.37
		5/2432	15.50	14.34
		6/2437	15.50	14.65
		7/2442	15.50	13.93
		8/2447	15.50	14.36
		9/2452	15.50	14.16
		10/2457	15.50	14.12
		11/2462	15.50	13.93
		12/2467	15.50	14.20
		13/2472	15.50	14.14
	802.11g (6M)	1/2412	11.50	10.60
		2/2417	11.50	10.68
		3/2422	15.50	14.52
		4/2427	15.50	14.39
		5/2432	15.50	14.38
		6/2437	15.50	14.48
		7/2442	15.50	14.35
		8/2447	15.50	14.37
		9/2452	15.50	14.30
		10/2457	10.00	9.45
		11/2462	8.50	7.38
		12/2467	15.50	14.47
		13/2472	15.50	14.48
	802.11n-HT20 (MCS0)	1/2412	11.50	10.02
		2/2417	11.50	10.12
		3/2422	15.50	13.97
		4/2427	15.50	13.95
		5/2432	15.50	14.02
		6/2437	15.50	14.11
		7/2442	15.50	14.05
		8/2447	15.50	14.03
		9/2452	15.50	13.89
		10/2457	10.00	8.70

		11/2462	8.50	7.07
		12/2467	15.50	14.11
		13/2472	15.50	14.34
	802.11n-HT40 (MCS0)	3/2422	7.00	5.54
		4/2427	8.50	6.60
		5/2432	15.50	13.98
		6/2437	15.50	14.13
		7/2442	8.00	6.52
		8/2447	7.00	5.59
		9/2452	6.50	5.06
		10/2457	8.00	6.58
		11/2462	8.00	6.59
		Antenna 2	802.11b (1M)	1/2412
2/2417	15.50			14.16
3/2422	15.50			14.09
4/2427	15.50			13.98
5/2432	15.50			14.30
6/2437	15.50			14.07
7/2442	15.50			13.79
8/2447	15.50			14.57
9/2452	15.50			14.66
10/2457	15.50			14.88
11/2462	15.50			14.58
12/2467	15.50			14.64
13/2472	15.50			14.49
802.11g (6M)	1/2412		11.5	9.91
	2/2417		11.5	9.94
	3/2422		15.5	13.83
	4/2427		15.5	13.79
	5/2432		15.5	14.05
	6/2437		15.5	14.12
	7/2442		15.5	13.92
	8/2447		15.5	14.25
	9/2452		15.5	14.46
	10/2457		10	9.40
	11/2462		8.50	7.19
	12/2467		15.50	14.44
13/2472	15.50	14.53		
802.11n-HT20 (MCS0)	1/2412	11.50	10.06	
	2/2417	11.50	10.02	

		3/2422	15.50	13.89	
		4/2427	15.50	14.42	
		5/2432	15.50	14.24	
		6/2437	15.50	14.28	
		7/2442	15.50	14.13	
		8/2447	15.50	14.32	
		9/2452	15.50	14.58	
		10/2457	10.00	9.24	
		11/2462	8.50	7.03	
		12/2467	15.50	14.61	
		13/2472	15.50	14.77	
		802.11n-HT40 (MCS0)	3/2422	7.00	5.61
			4/2427	8.50	7.12
	5/2432		14.50	13.61	
	6/2437		14.50	13.55	
	7/2442		8.00	6.56	
	8/2447		7.00	5.52	
	MIMO	802.11g (6M)	1/2412	14.51	13.28
			2/2417	14.51	13.34
3/2422			18.51	17.20	
4/2427			18.51	17.11	
5/2432			18.51	17.23	
6/2437			18.51	17.31	
7/2442			18.51	17.15	
8/2447			18.51	17.32	
9/2452			18.51	17.39	
10/2457			13.01	12.29	
11/2462			11.51	10.15	
12/2467			18.51	17.44	
13/2472			18.51	17.51	
802.11n-HT20 (MCS0)		1/2412	14.51	13.05	
		2/2417	14.51	13.08	
		3/2422	18.51	16.94	
		4/2427	18.51	17.20	
		5/2432	18.51	17.14	
		6/2437	18.51	17.21	
		7/2442	18.51	17.10	

		8/2447	18.51	17.19
		9/2452	18.51	17.26
		10/2457	13.01	11.99
		11/2462	11.51	9.82
		12/2467	18.51	16.94
		13/2472	18.51	17.14
	802.11n-HT40 (MCS0)	3/2422	10.01	8.34
		4/2427	11.51	9.88
		5/2432	18.04	17.32
		6/2437	18.04	17.36
		7/2442	11.01	9.31
		8/2447	10.01	8.32
		9/2452	9.51	7.84
		10/2457	11.01	9.37
		11/2462	11.01	9.35

Wi-Fi 2.4G (REC Off)		Channel /Frequency(MHz)	Maximum Output Power (dBm)	
Antenna	Mode		Tune-up	Meas.
Antenna 1	802.11b (1M)	1/2412	18.00	16.96
		2/2417	18.00	16.72
		3/2422	18.00	16.80
		4/2427	18.00	16.91
		5/2432	18.00	16.89
		6/2437	18.00	17.25
		7/2442	18.00	17.10
		8/2447	18.00	16.93
		9/2452	18.00	16.91
		10/2457	18.00	16.80
		11/2462	18.00	16.94
		12/2467	18.00	16.70
		13/2472	16.00	14.88
	802.11g (6M)	1/2412	11.50	10.65
		2/2417	11.50	10.61
		3/2422	18.00	16.73
		4/2427	18.00	16.71
		5/2432	18.00	16.70
		6/2437	18.00	16.84
		7/2442	18.00	16.74
	8/2447	18.00	16.56	

		9/2452	18.00	16.60	
		10/2457	10.00	9.11	
		11/2462	8.50	7.19	
		12/2467	18.00	16.79	
		13/2472	18.00	16.76	
	802.11n-HT20 (MCS0)	1/2412	11.50	10.10	
		2/2417	11.50	10.06	
		3/2422	17.00	15.62	
		4/2427	17.00	15.53	
		5/2432	17.00	15.65	
		6/2437	17.00	15.52	
		7/2442	17.00	15.47	
		8/2447	17.00	15.57	
		9/2452	17.00	15.51	
		10/2457	10.00	8.70	
		11/2462	8.50	7.15	
		12/2467	17.00	15.74	
		13/2472	17.00	15.54	
	802.11n-HT40 (MCS0)	3/2422	7.00	5.57	
		4/2427	8.50	7.03	
		5/2432	15.50	14.14	
		6/2437	15.50	13.93	
		7/2442	8.00	6.48	
		8/2447	7.00	5.55	
		9/2452	6.50	4.98	
		10/2457	8.00	6.56	
		11/2462	8.00	6.43	
	Antenna 2	802.11b (1M)	1/2412	17.00	16.01
			2/2417	17.00	15.97
			3/2422	17.00	15.58
			4/2427	17.00	15.60
			5/2432	17.00	15.57
			6/2437	17.00	15.78
7/2442			17.00	15.81	
8/2447			17.00	15.89	
9/2452			17.00	16.37	
10/2457			17.00	16.21	
11/2462			17.00	15.59	
12/2467			17.00	15.64	
13/2472			16.00	14.77	

	802.11g (6M)	1/2412	11.50	10.39	
		2/2417	11.50	10.31	
		3/2422	17.00	15.78	
		4/2427	17.00	15.65	
		5/2432	17.00	15.97	
		6/2437	17.00	16.16	
		7/2442	17.00	15.83	
		8/2447	17.00	16.21	
		9/2452	17.00	16.34	
		10/2457	10.00	9.43	
		11/2462	8.50	7.11	
		12/2467	17.00	16.16	
		13/2472	17.00	15.98	
	802.11n-HT20 (MCS0)	1/2412	11.50	9.99	
		2/2417	11.50	10.03	
		3/2422	16.00	14.46	
		4/2427	16.00	14.36	
		5/2432	16.00	14.42	
		6/2437	16.00	14.68	
		7/2442	16.00	14.39	
		8/2447	16.00	14.90	
		9/2452	16.00	15.06	
		10/2457	10.00	9.06	
		11/2462	8.50	6.91	
		12/2467	16.00	14.55	
		13/2472	16.00	14.56	
	802.11n-HT40 (MCS0)	3/2422	7.00	5.62	
		4/2427	8.50	6.96	
		5/2432	14.50	13.07	
		6/2437	14.50	13.14	
		7/2442	8.00	6.43	
		8/2447	7.00	5.40	
		9/2452	6.50	5.01	
		10/2457	8.00	6.48	
		11/2462	8.00	6.60	
	MIMO	802.11g (6M)	1/2412	14.51	13.48
			2/2417	14.51	13.57
			3/2422	20.54	19.28
			4/2427	20.54	19.23
5/2432			20.54	19.27	

		6/2437	20.54	19.46
		7/2442	20.54	19.39
		8/2447	20.54	19.31
		9/2452	20.54	19.31
		10/2457	13.01	12.29
		11/2462	11.51	10.12
		12/2467	20.54	18.98
		13/2472	20.54	19.13
	802.11n-HT20 (MCS0)	1/2412	14.51	12.96
		2/2417	14.51	13.08
		3/2422	19.54	18.14
		4/2427	19.54	17.98
		5/2432	19.54	18.07
		6/2437	19.54	18.00
		7/2442	19.54	17.96
		8/2447	19.54	18.29
		9/2452	19.54	18.34
		10/2457	13.01	11.89
		11/2462	11.51	10.00
		12/2467	19.54	18.06
	13/2472	19.54	17.97	
	802.11n-HT40 (MCS0)	3/2422	10.01	8.47
		4/2427	11.51	10.15
		5/2432	18.04	16.59
		6/2437	18.04	16.57
		7/2442	11.01	9.44
		8/2447	10.01	8.49
		9/2452	9.51	7.95
		10/2457	11.01	9.56
	11/2462	11.01	9.52	

Wi-Fi 5G (U-NII-1) (REC On)		Channel /Frequency(MHz)	Maximum Output Power (dBm)	
Antenna	Mode		Tune-up	Meas.
Antenna 1	802.11a (6M)	36/5180	10.5	9.03
		40/5200	16.0	15.43
		44/5220	16.0	14.58
		48/5240	16.0	14.55
	802.11n-HT20 (MCS0)	36/5180	10.5	8.91
		40/5200	16.0	14.55

		44/5220	16.0	14.94
		48/5240	16.0	14.38
	802.11n-HT40 (MCS0)	38/5190	9.5	8.22
		46/5230	15.5	14.95
	802.11ac-VHT20 (6M)	36/5180	10.5	8.96
		40/5200	16.0	14.52
		44/5220	16.0	14.92
	802.11ac-VHT40 (MCS0)	48/5240	16.0	15.18
		38/5190	9.5	8.18
	802.11ac-VHT80 (MCS0)	46/5230	15.5	14.06
42/5210		6.5	5.01	
802.11ac-VHT160 (MCS0)	50/5250	6.5	5.25	
Antenna 2	802.11a (6M)	36/5180	10.5	10.33
		40/5200	15.5	14.48
		44/5220	15.5	14.57
		48/5240	15.5	14.55
	802.11n-HT20 (MCS0)	36/5180	10.5	9.98
		40/5200	15.5	14.62
		44/5220	15.5	14.82
		48/5240	15.5	14.59
	802.11n-HT40 (MCS0)	38/5190	9.5	9.34
		46/5230	15.0	14.51
	802.11ac-VHT20 (6M)	36/5180	10.5	9.97
		40/5200	15.5	14.80
		44/5220	15.5	14.66
		48/5240	15.5	14.58
	802.11ac-VHT40 (MCS0)	38/5190	9.5	8.34
		46/5230	15.0	14.67
	802.11ac-VHT80 (MCS0)	42/5210	6.5	5.16
	802.11ac-VHT160 (MCS0)	50/5250	6.5	5.28
CDD/ MIMO	802.11a (6M)	36/5180	13.5	12.74
		40/5200	18.8	17.99
		44/5220	18.8	17.59
		48/5240	18.8	17.56
	802.11n-HT20 (MCS0)	36/5180	13.5	12.49
		40/5200	18.8	17.60

		44/5220	18.8	17.32
		48/5240	18.8	17.31
	802.11n-HT40 (MCS0)	38/5190	12.5	11.83
		46/5230	18.3	17.75
	802.11ac-VHT20 (6M)	36/5180	13.5	12.50
		40/5200	18.8	17.67
		44/5220	18.8	17.23
	802.11ac-VHT40 (MCS0)	48/5240	18.8	17.30
		38/5190	12.5	11.27
	802.11ac-VHT80 (MCS0)	46/5230	18.3	17.39
		42/5210	9.5	8.10
	802.11ac-VHT160 (MCS0)	50/5250	9.5	8.28

Wi-Fi 5G (U-NII-2A) (REC On)		Channel /Frequency(MHz)	Maximum Output Power (dBm)	
Antenna	Mode		Tune-up	Meas.
Antenna 1	802.11a (6M)	52/5260	16.0	14.97
		56/5280	16.0	14.81
		60/5300	16.0	15.04
		64/5320	10.5	8.89
	802.11n-HT20 (MCS0)	52/5260	16.0	14.07
		56/5280	16.0	14.24
		60/5300	16.0	14.39
		64/5320	10.5	8.76
	802.11n-HT40 (MCS0)	54/5270	15.5	15.11
		62/5310	9.0	7.46
	802.11ac-VHT20 (6M)	52/5260	16.0	14.85
		56/5280	16.0	14.26
		60/5300	16.0	14.39
		64/5320	10.5	9.07
	802.11ac-VHT40 (MCS0)	54/5270	15.5	14.37
		62/5310	9.0	7.45
802.11ac-VHT80 (MCS0)	58/5290	6.5	5.88	
Antenna 2	802.11a (6M)	52/5260	15.5	13.96
		56/5280	15.5	13.80
		60/5300	15.5	14.17
		64/5320	10.5	10.06

	802.11n-HT20 (MCS0)	52/5260	15.5	14.76
		56/5280	15.5	14.62
		60/5300	15.5	14.59
		64/5320	10.5	9.13
	802.11n-HT40 (MCS0)	54/5270	15.0	13.98
		62/5310	9.0	7.27
	802.11ac-VHT20 (6M)	52/5260	15.5	15.06
		56/5280	15.5	15.03
		60/5300	15.5	14.74
		64/5320	10.5	8.62
	802.11ac-VHT40 (MCS0)	54/5270	15.0	14.17
		62/5310	9.0	7.41
	802.11ac-VHT80 (MCS0)	58/5290	6.5	5.73
	CDD/ MIMO	802.11a (6M)	52/5260	18.8
56/5280			18.8	17.34
60/5300			18.8	17.72
64/5320			13.5	12.52
802.11n-HT20 (MCS0)		52/5260	18.8	17.44
		56/5280	18.8	17.44
		60/5300	18.8	17.50
		64/5320	13.5	11.96
802.11n-HT40 (MCS0)		54/5270	18.3	18.05
		62/5310	12.0	10.38
802.11ac-VHT20 (6M)		52/5260	18.8	17.59
		56/5280	18.8	17.67
		60/5300	18.8	17.58
		64/5320	13.5	11.86
802.11ac-VHT40 (MCS0)		54/5270	18.3	17.95
		62/5310	12.0	10.44
802.11ac-VHT80 (MCS0)		58/5290	9.5	8.82

Wi-Fi 5G (U-NII-2C) (REC On)		Channel /Frequency(MHz)	Maximum Output Power (dBm)	
Antenna	Mode		Tune-up	Meas.
Antenna 1	802.11a (6M)	100/5500	10.5	9.56
		104/5520	16.0	14.38
		108/5540	16.0	14.23
		112/5560	16.0	14.24

		116/5580	16.0	14.11
		120/5600	16.0	14.28
		124/5620	16.0	14.31
		128/5640	16.0	14.21
		132/5660	16.0	14.65
		136/5680	16.0	14.90
		140/5700	11.0	10.52
	802.11n-HT20 (MCS0)	100/5500	10.5	9.35
		104/5520	16.0	14.60
		108/5540	16.0	14.58
		112/5560	16.0	14.51
		116/5580	16.0	14.69
		120/5600	16.0	14.61
		124/5620	16.0	14.55
		128/5640	16.0	14.47
		132/5660	16.0	14.76
		136/5680	16.0	14.74
		140/5700	11.0	9.94
	802.11n-HT40 (MCS0)	102/5510	9.5	8.53
		110/5550	15.5	14.62
		118/5590	15.5	14.71
		126/5630	15.5	14.28
		134/5670	9.5	8.46
	802.11ac-VHT20 (6M)	100/5500	10.5	9.84
		104/5520	16.0	14.12
		108/5540	16.0	14.06
		112/5560	16.0	14.69
		116/5580	16.0	14.68
		120/5600	16.0	14.61
		124/5620	16.0	14.51
		128/5640	16.0	14.40
		132/5660	16.0	14.72
		136/5680	16.0	14.71
140/5700		11.0	9.94	
802.11ac-VHT40 (MCS0)	102/5510	9.5	8.07	
	110/5550	15.5	14.27	
	118/5590	15.5	14.88	
	126/5630	15.5	14.67	
	134/5670	9.5	8.51	
802.11ac-VHT80	106/5530	6.5	5.03	

	(MCS0)	122/5610	6.5	5.42
	802.11ac-VHT160 (MCS0)	114/5570	6.5	5.12
Antenna 2	802.11a (6M)	100/5500	10.5	9.53
		104/5520	15.5	14.95
		108/5540	15.5	14.83
		112/5560	15.5	14.70
		116/5580	15.5	14.74
		120/5600	15.5	14.68
		124/5620	15.5	14.65
		128/5640	15.5	14.68
		132/5660	15.5	14.66
		136/5680	15.5	14.67
		140/5700	11.0	9.58
		802.11n-HT20 (MCS0)	100/5500	10.5
	104/5520		15.5	14.36
	108/5540		15.5	15.15
	112/5560		15.5	15.29
	116/5580		15.5	14.18
	120/5600		15.5	14.19
	124/5620		15.5	14.35
	128/5640		15.5	14.61
	132/5660		15.5	15.32
	136/5680		15.5	15.26
	802.11n-HT40 (MCS0)	102/5510	9.5	8.64
		110/5550	15.0	14.48
		118/5590	15.0	14.73
		126/5630	15.0	14.57
		134/5670	9.5	9.05
	802.11ac-VHT20 (6M)	100/5500	10.5	9.33
		104/5520	15.5	14.36
		108/5540	15.5	14.33
		112/5560	15.5	14.29
		116/5580	15.5	14.26
		120/5600	15.5	14.19
		124/5620	15.5	14.35
		128/5640	15.5	14.33
		132/5660	15.5	15.30
		136/5680	15.5	15.27

	802.11ac-VHT40 (MCS0)	140/5700	11.0	10.21
		102/5510	9.5	8.50
		110/5550	15.0	14.25
		118/5590	15.0	14.13
		126/5630	15.0	14.17
		134/5670	9.5	9.10
	802.11ac-VHT80 (MCS0)	106/5530	6.5	5.63
		122/5610	6.5	4.93
	802.11ac-VHT160 (MCS0)	114/5570	6.5	6.48
	CDD/ MIMO	802.11a (6M)	100/5500	13.5
104/5520			18.8	17.68
108/5540			18.8	17.55
112/5560			18.8	17.49
116/5580			18.8	17.45
120/5600			18.8	17.49
124/5620			18.8	17.49
128/5640			18.8	17.46
132/5660			18.8	17.87
136/5680			18.8	17.80
140/5700			14.0	13.09
802.11n-HT20 (MCS0)			100/5500	13.5
		104/5520	18.8	17.49
		108/5540	18.8	17.99
		112/5560	18.8	17.93
		116/5580	18.8	17.45
		120/5600	18.8	17.42
		124/5620	18.8	17.46
		128/5640	18.8	17.55
		132/5660	18.8	18.06
		136/5680	18.8	18.02
		140/5700	14.0	13.10
		802.11n-HT40 (MCS0)	102/5510	12.5
110/5550			18.3	17.61
118/5590			18.3	17.41
126/5630			18.3	17.44
134/5670			12.5	11.78
802.11ac-VHT20 (6M)		100/5500	13.5	12.60
		104/5520	18.8	17.25
		108/5540	18.8	17.21

		112/5560	18.8	17.66
		116/5580	18.8	17.49
		120/5600	18.8	17.42
		124/5620	18.8	17.44
		128/5640	18.8	17.38
		132/5660	18.8	18.03
		136/5680	18.8	18.01
		140/5700	14.0	13.09
	802.11ac-VHT40 (MCS0)	102/5510	12.5	11.30
		110/5550	18.3	17.27
		118/5590	18.3	17.53
		126/5630	18.3	17.44
		134/5670	12.5	11.83
	802.11ac-VHT80 (MCS0)	106/5530	9.5	8.35
		122/5610	9.5	8.19
	802.11ac-VHT160 (MCS0)	114/5570	9.5	8.86

Wi-Fi 5G (U-NII-3) (REC On)		Channel /Frequency(MHz)	Maximum Output Power (dBm)	
Antenna	Mode		Tune-up	Meas.
Antenna 1	802.11a (6M)	149/5745	11.5	10.74
		153/5760	11.5	10.90
		157/5785	11.5	11.06
		161/5800	11.5	11.29
		165/5825	11.5	10.54
	802.11n-HT20 (MCS0)	149/5745	11.5	10.53
		153/5760	11.5	10.91
		157/5785	11.5	10.92
		161/5800	11.5	10.95
		165/5825	11.5	9.67
	802.11n-HT40 (MCS0)	151/5755	11.5	11.08
		159/5795	11.5	11.46
	802.11ac-VHT20 (6M)	149/5745	11.5	10.51
		153/5760	11.5	10.84
		157/5785	11.5	10.90
		161/5800	11.5	10.89
		165/5825	11.5	10.17
	802.11ac-VHT40 (MCS0)	151/5755	11.5	11.20
		159/5795	11.5	11.26

	802.11ac-VHT80 (MCS0)	155/5775	11.5	10.25
Antenna 2	802.11a (6M)	149/5745	11.5	11.32
		153/5760	11.5	11.36
		157/5785	11.5	10.63
		161/5800	11.5	10.68
		165/5825	11.5	10.81
	802.11n-HT20 (MCS0)	149/5745	11.5	10.88
		153/5760	11.5	10.95
		157/5785	11.5	11.11
		161/5800	11.5	11.35
		165/5825	11.5	10.52
	802.11n-HT40 (MCS0)	151/5755	11.5	10.89
		159/5795	11.5	11.36
	802.11ac-VHT20 (6M)	149/5745	11.5	10.98
		153/5760	11.5	10.91
		157/5785	11.5	11.10
		161/5800	11.5	11.26
		165/5825	11.5	11.37
	802.11ac-VHT40 (MCS0)	151/5755	11.5	10.69
		159/5795	11.5	10.94
	802.11ac-VHT80 (MCS0)	155/5775	11.5	10.69
CDD/ MIMO	802.11a (6M)	149/5745	14.5	14.05
		153/5760	14.5	14.15
		157/5785	14.5	14.36
		161/5800	14.5	14.50
		165/5825	14.5	13.69
	802.11n-HT20 (MCS0)	149/5745	14.5	13.72
		153/5760	14.5	13.94
		157/5785	14.5	14.03
		161/5800	14.5	14.16
		165/5825	14.5	13.13
	802.11n-HT40 (MCS0)	151/5755	14.5	14.00
		159/5795	14.5	14.42
	802.11ac-VHT20 (6M)	149/5745	14.5	13.76
		153/5760	14.5	13.89
		157/5785	14.5	14.01
		161/5800	14.5	14.09
		165/5825	14.5	13.82

	802.11ac-VHT40 (MCS0)	151/5755	14.5	13.96
		159/5795	14.5	14.11
	802.11ac-VHT80 (MCS0)	155/5775	14.5	13.49

Wi-Fi 5G (U-NII-1) (REC Off)		Channel /Frequency(MHz)	Maximum Output Power (dBm)	
Antenna	Mode		Tune-up	Meas.
Antenna 1	802.11a (6M)	36/5180	10.5	9.86
		40/5200	16.0	15.35
		44/5220	16.0	15.73
		48/5240	16.0	15.48
	802.11n-HT20 (MCS0)	36/5180	10.5	8.95
		40/5200	16.0	14.85
		44/5220	16.0	15.10
		48/5240	16.0	15.17
	802.11n-HT40 (MCS0)	38/5190	9.5	8.43
		46/5230	15.5	14.60
	802.11ac-VHT20 (6M)	36/5180	10.5	9.00
		40/5200	16.0	14.88
		44/5220	16.0	15.09
	802.11ac-VHT40 (MCS0)	48/5240	16.0	15.04
		38/5190	9.5	8.45
	802.11ac-VHT80 (MCS0)	46/5230	15.5	14.59
42/5210		6.5	5.23	
802.11ac-VHT160 (MCS0)	50/5250	6.5	5.53	
Antenna 2	802.11a (6M)	36/5180	10.5	10.17
		40/5200	15.5	14.68
		44/5220	15.5	14.76
		48/5240	15.5	14.43
	802.11n-HT20 (MCS0)	36/5180	10.5	9.73
		40/5200	15.5	14.31
		44/5220	15.5	14.26
		48/5240	15.5	14.15
	802.11n-HT40 (MCS0)	38/5190	9.5	8.91
		46/5230	15.0	13.75
	802.11ac-VHT20 (6M)	36/5180	10.5	9.26
		40/5200	15.5	14.87

		44/5220	15.5	14.87	
		48/5240	15.5	14.41	
	802.11ac-VHT40 (MCS0)	38/5190	9.5	9.26	
		46/5230	15.0	14.24	
	802.11ac-VHT80 (MCS0)	42/5210	6.5	5.92	
	802.11ac-VHT160 (MCS0)	50/5250	6.5	5.02	
	CDD/ MIMO	802.11a (6M)	36/5180	13.5	13.31
			40/5200	18.8	18.32
			44/5220	18.8	18.27
			48/5240	18.8	18.28
802.11n-HT20 (MCS0)		36/5180	13.5	12.68	
		40/5200	18.8	17.88	
		44/5220	18.8	17.99	
802.11n-HT40 (MCS0)		48/5240	18.8	17.99	
		38/5190	12.5	12.02	
802.11ac-VHT20 (6M)		46/5230	18.3	17.49	
		36/5180	13.5	12.15	
		40/5200	18.8	17.89	
		44/5220	18.8	17.99	
802.11ac-VHT40 (MCS0)		48/5240	18.8	17.74	
		38/5190	12.5	11.86	
802.11ac-VHT80 (MCS0)		46/5230	18.3	17.45	
		42/5210	9.5	8.95	
802.11ac-VHT160 (MCS0)		50/5250	9.5	8.59	

Wi-Fi 5G (U-NII-2A) (REC Off)		Channel /Frequency(MHz)	Maximum Output Power (dBm)	
Antenna	Mode		Tune-up	Meas.
Antenna 1	802.11a (6M)	52/5260	16.0	15.67
		56/5280	16.0	15.59
		60/5300	16.0	15.26
		64/5320	10.5	9.47
	802.11n-HT20 (MCS0)	52/5260	16.0	15.07
		56/5280	16.0	15.05
		60/5300	16.0	14.71
		64/5320	10.5	9.07

	802.11n-HT40 (MCS0)	54/5270	15.5	14.61
		62/5310	9.0	8.01
	802.11ac-VHT20 (6M)	52/5260	16.0	15.08
		56/5280	16.0	14.69
		60/5300	16.0	14.77
	802.11ac-VHT40 (MCS0)	64/5320	10.5	9.04
		54/5270	15.5	14.55
	802.11ac-VHT80 (MCS0)	62/5310	9.0	7.04
		58/5290	6.5	5.75
	Antenna 2	802.11a (6M)	52/5260	15.5
56/5280			15.5	15.08
60/5300			15.5	15.09
64/5320			10.5	9.39
802.11n-HT20 (MCS0)		52/5260	15.5	14.34
		56/5280	15.5	14.05
		60/5300	15.5	13.85
		64/5320	10.5	9.41
802.11n-HT40 (MCS0)		54/5270	15.0	13.55
		62/5310	9.0	7.78
802.11ac-VHT20 (6M)		52/5260	15.5	14.35
		56/5280	15.5	14.04
		60/5300	15.5	13.83
802.11ac-VHT40 (MCS0)		64/5320	10.5	9.31
		54/5270	15.0	13.70
802.11ac-VHT80 (MCS0)		62/5310	9.0	7.72
		58/5290	6.5	5.37
CDD/ MIMO		802.11a (6M)	52/5260	18.8
	56/5280		18.8	18.12
	60/5300		18.8	17.86
	64/5320		13.5	12.42
	802.11n-HT20 (MCS0)	52/5260	18.8	17.72
		56/5280	18.8	17.59
		60/5300	18.8	17.31
		64/5320	13.5	12.25
	802.11n-HT40 (MCS0)	54/5270	18.3	17.11
		62/5310	12.0	10.42
	802.11ac-VHT20 (6M)	52/5260	18.8	17.75
		56/5280	18.8	17.38

		60/5300	18.8	17.32
		64/5320	13.5	12.18
	802.11ac-VHT40 (MCS0)	54/5270	18.3	17.16
		62/5310	12.0	10.40
	802.11ac-VHT80 (MCS0)	58/5290	9.5	8.19

Wi-Fi 5G (U-NII-2C) (REC Off)		Channel /Frequency(MHz)	Maximum Output Power (dBm)	
Antenna	Mode		Tune-up	Meas.
Antenna 1	802.11a (6M)	100/5500	10.5	9.26
		104/5520	16.0	14.42
		108/5540	16.0	14.33
		112/5560	16.0	14.66
		116/5580	16.0	14.74
		120/5600	16.0	14.66
		124/5620	16.0	14.69
		128/5640	16.0	14.73
		132/5660	16.0	14.71
		136/5680	16.0	14.59
		140/5700	11.0	10.80
	802.11n-HT20 (MCS0)	100/5500	10.5	9.13
		104/5520	16.0	14.93
		108/5540	16.0	14.91
		112/5560	16.0	14.92
		116/5580	16.0	14.77
		120/5600	16.0	14.83
		124/5620	16.0	14.75
		128/5640	16.0	14.32
		132/5660	16.0	15.12
		136/5680	16.0	15.11
		140/5700	11.0	9.53
	802.11n-HT40 (MCS0)	102/5510	9.5	8.24
		110/5550	15.5	14.22
		118/5590	15.5	14.45
		126/5630	15.5	13.65
		134/5670	9.5	7.77
	802.11ac-VHT20 (6M)	100/5500	10.5	9.03
		104/5520	16.0	14.92
		108/5540	16.0	14.82

		112/5560	16.0	14.96	
		116/5580	16.0	14.95	
		120/5600	16.0	14.90	
		124/5620	16.0	15.21	
		128/5640	16.0	14.43	
		132/5660	16.0	15.02	
		136/5680	16.0	15.04	
		140/5700	11.0	9.64	
	802.11ac-VHT40 (MCS0)	102/5510	9.5	8.45	
		110/5550	15.5	14.23	
		118/5590	15.5	14.38	
		126/5630	15.5	14.38	
		134/5670	9.5	7.81	
	802.11ac-VHT80 (MCS0)	106/5530	6.5	5.22	
		122/5610	6.5	5.29	
	802.11ac-VHT160 (MCS0)	114/5570	6.5	5.54	
	Antenna 2	802.11a (6M)	100/5500	10.5	9.53
			104/5520	15.5	14.08
			108/5540	15.5	14.17
112/5560			15.5	14.34	
116/5580			15.5	14.46	
120/5600			15.5	14.70	
124/5620			15.5	14.72	
128/5640			15.5	14.72	
132/5660			15.5	14.77	
136/5680			15.5	14.86	
140/5700			11.0	10.62	
802.11n-HT20 (MCS0)			100/5500	10.5	9.07
		104/5520	15.5	14.77	
		108/5540	15.5	14.77	
		112/5560	15.5	14.85	
		116/5580	15.5	14.92	
		120/5600	15.5	14.63	
		124/5620	15.5	14.71	
		128/5640	15.5	14.48	
		132/5660	15.5	14.45	
		136/5680	15.5	14.35	
140/5700		11.0	10.23		
802.11n-HT40		102/5510	9.5	8.22	

	(MCS0)	110/5550	15.0	13.41	
		118/5590	15.0	13.72	
		126/5630	15.0	13.95	
		134/5670	9.5	9.00	
	802.11ac-VHT20 (6M)	100/5500	10.5	8.93	
		104/5520	15.5	14.67	
		108/5540	15.5	14.60	
		112/5560	15.5	14.64	
		116/5580	15.5	14.91	
		120/5600	15.5	14.24	
		124/5620	15.5	14.26	
		128/5640	15.5	14.36	
		132/5660	15.5	14.35	
		136/5680	15.5	14.34	
	802.11ac-VHT40 (MCS0)	140/5700	11.0	10.30	
		102/5510	9.5	7.92	
		110/5550	15.0	13.16	
		118/5590	15.0	13.37	
		126/5630	15.0	13.83	
	802.11ac-VHT80 (MCS0)	134/5670	9.5	8.70	
106/5530		6.5	4.80		
802.11ac-VHT160 (MCS0)	122/5610	6.5	5.33		
	114/5570	6.5	5.22		
CDD/ MIMO	802.11a (6M)	100/5500	13.5	12.41	
		104/5520	18.8	17.28	
		108/5540	18.8	17.27	
		112/5560	18.8	17.54	
		116/5580	18.8	17.54	
		120/5600	18.8	17.71	
		124/5620	18.8	17.78	
		128/5640	18.8	17.88	
		132/5660	18.8	17.81	
		136/5680	18.8	18.31	
	802.11n-HT20 (MCS0)	140/5700	14.0	13.73	
		100/5500	13.5	12.12	
		104/5520	18.8	17.88	
		108/5540	18.8	17.86	
		112/5560	18.8	17.91	
			116/5580	18.8	17.54

		120/5600	18.8	17.73
		124/5620	18.8	17.84
		128/5640	18.8	17.43
		132/5660	18.8	17.82
		136/5680	18.8	17.76
		140/5700	14.0	12.91
	802.11n-HT40 (MCS0)	102/5510	12.5	10.90
		110/5550	18.3	16.83
		118/5590	18.3	17.02
		126/5630	18.3	16.83
		134/5670	12.5	11.40
	802.11ac-VHT20 (6M)	100/5500	13.5	11.97
		104/5520	18.8	17.80
		108/5540	18.8	17.72
		112/5560	18.8	17.81
		116/5580	18.8	17.93
		120/5600	18.8	17.60
		124/5620	18.8	17.25
		128/5640	18.8	17.40
		132/5660	18.8	17.70
		136/5680	18.8	17.70
		140/5700	14.0	13.01
	802.11ac-VHT40 (MCS0)	102/5510	12.5	11.22
		110/5550	18.3	16.74
		118/5590	18.3	16.90
		126/5630	18.3	16.72
		134/5670	12.5	11.25
	802.11ac-VHT80 (MCS0)	106/5530	9.5	7.99
		122/5610	9.5	8.29
	802.11ac-VHT160 (MCS0)	114/5570	9.5	8.39

Wi-Fi 5G (U-NII-3) (REC Off)		Channel /Frequency(MHz)	Maximum Output Power (dBm)	
Antenna	Mode		Tune-up	Meas.
Antenna 1	802.11a (6M)	149/5745	11.5	11.42
		153/5760	11.5	10.55
		157/5785	11.5	10.89
		161/5800	11.5	10.87
		165/5825	11.5	11.43

	802.11n-HT20 (MCS0)	149/5745	11.5	10.90
		153/5760	11.5	9.93
		157/5785	11.5	10.23
		161/5800	11.5	10.40
		165/5825	11.5	10.73
	802.11n-HT40 (MCS0)	151/5755	11.5	10.95
		159/5795	11.5	11.04
	802.11ac-VHT20 (6M)	149/5745	11.5	10.84
		153/5760	11.5	11.47
		157/5785	11.5	10.23
		161/5800	11.5	10.39
		165/5825	11.5	11.03
	802.11ac-VHT40 (MCS0)	151/5755	11.5	10.97
		159/5795	11.5	10.33
	802.11ac-VHT80 (MCS0)	155/5775	11.5	9.81
Antenna 2	802.11a (6M)	149/5745	11.5	10.99
		153/5760	11.5	10.21
		157/5785	11.5	10.27
		161/5800	11.5	10.29
		165/5825	11.5	11.18
	802.11n-HT20 (MCS0)	149/5745	11.5	10.47
		153/5760	11.5	11.08
		157/5785	11.5	11.45
		161/5800	11.5	10.07
		165/5825	11.5	10.75
	802.11n-HT40 (MCS0)	151/5755	11.5	10.58
		159/5795	11.5	10.81
	802.11ac-VHT20 (6M)	149/5745	11.5	10.45
		153/5760	11.5	11.18
		157/5785	11.5	11.41
		161/5800	11.5	10.11
		165/5825	11.5	11.10
	802.11ac-VHT40 (MCS0)	151/5755	11.5	10.54
		159/5795	11.5	10.46
	802.11ac-VHT80 (MCS0)	155/5775	11.5	9.90
	CDD/ MIMO	802.11a (6M)	149/5745	14.5
153/5760			14.5	13.37
157/5785			14.5	13.52

		161/5800	14.5	13.59
		165/5825	14.5	12.82
	802.11n-HT20 (MCS0)	149/5745	14.5	13.69
		153/5760	14.5	14.24
		157/5785	14.5	13.08
		161/5800	14.5	13.24
		165/5825	14.5	13.74
	802.11n-HT40 (MCS0)	151/5755	14.5	13.46
		159/5795	14.5	13.64
	802.11ac-VHT20 (6M)	149/5745	14.5	12.87
		153/5760	14.5	14.33
		157/5785	14.5	13.78
		161/5800	14.5	13.26
		165/5825	14.5	13.27
	802.11ac-VHT40 (MCS0)	151/5755	14.5	14.18
		159/5795	14.5	13.82
	802.11ac-VHT80 (MCS0)	155/5775	14.5	12.88

9.5 Bluetooth Mode

Bluetooth (HIGH)	Conducted Power(dBm)			Tune-up Limit (dBm)
	Channel/Frequency(MHz)			
	Ch 0/ 2402 MHz	Ch 10/ 2412MHz	Ch 23/ 2425MHz	
GFSK	16.90	16.80	16.80	18.30
$\pi/4$ DQPSK	14.60	14.70	14.60	16.40
8DPSK	14.60	14.60	14.50	16.40
Bluetooth	Ch 24/ 2426MHz	Ch 28/ 2430MHz	Ch 32/ 2434MHz	Tune-up Limit (dBm)
GFSK	15.80	15.70	15.50	17.30
$\pi/4$ DQPSK	13.70	13.50	13.60	15.40
8DPSK	13.50	13.60	13.50	15.40
Bluetooth	Ch 33/ 2435MHz	Ch 40/ 2442MHz	Ch 46/ 2448MHz	Tune-up Limit (dBm)
GFSK	15.20	15.40	15.20	16.90
$\pi/4$ DQPSK	13.50	13.70	13.60	15.00
8DPSK	13.40	13.50	13.60	15.00
Bluetooth	Ch 47/ 2449MHz	Ch 55/ 2457MHz	Ch 64/ 2466MHz	Tune-up Limit (dBm)
GFSK	15.70	15.70	15.50	17.20
$\pi/4$ DQPSK	13.80	13.70	13.50	15.30
8DPSK	13.70	13.80	13.60	15.30
Bluetooth	Ch 65/ 2467MHz	Ch 70/ 2472MHz	Ch 74/ 2476MHz	Tune-up Limit (dBm)
GFSK	15.00	14.80	14.70	16.50
$\pi/4$ DQPSK	12.90	13.00	12.80	14.60
8DPSK	13.00	13.10	12.90	14.60
Bluetooth	Ch 75/ 2477MHz	Ch 76/ 2478MHz	Ch 78/ 2480MHz	Tune-up Limit (dBm)
GFSK	15.10	15.00	15.00	16.70
$\pi/4$ DQPSK	13.00	13.20	13.00	14.80
8DPSK	13.30	13.10	12.90	14.80

Bluetooth (NORMAL)	Conducted Power(dBm)			Tune-up Limit (dBm)
	Channel/Frequency(MHz)			
	Ch 0/2402 MHz	Ch 6/2408 MHz	Ch 10/2412 MHz	
GFSK	9.10	9.00	9.10	10.50
$\pi/4$ DQPSK	7.80	7.60	7.50	8.50
8DPSK	7.80	7.60	7.50	8.50
Bluetooth	Ch 13/2415 MHz	Ch 39/2441 MHz	Ch 68/2470 MHz	Tune-up Limit (dBm)
GFSK	10.20	10.20	10.20	11.00
$\pi/4$ DQPSK	7.80	7.80	7.80	9.00
8DPSK	7.80	7.80	7.80	9.00
Bluetooth	Ch 69/2471 MHz	Ch 72/2474 MHz	Ch 78/2480 MHz	Tune-up Limit (dBm)
GFSK	8.10	8.10	8.10	10.00
$\pi/4$ DQPSK	7.60	7.30	7.40	8.50
8DPSK	7.60	7.30	7.30	8.50
BLE	Ch 0/2402 MHz	Ch 2/2408 MHz	Ch 5/2412 MHz	Tune-up Limit (dBm)
GFSK	7.71	7.08	7.37	8.00
BLE	Ch 6/2415 MHz	Ch 18/2441 MHz	Ch 31/2470 MHz	Tune-up Limit (dBm)
GFSK	7.44	7.69	7.56	9.00
BLE	Ch 32/2471 MHz	Ch 35/2474 MHz	Ch 39/2480 MHz	Tune-up Limit (dBm)
GFSK	6.87	6.94	6.67	7.50

10 Measured and Reported (Scaled) SAR Results

10.1 EUT Antenna Locations

The Detailed Antenna Locations refer to *Antenna Locations*.

Overall (Length x Width): 158 mm x 73.4 mm						
Overall Diagonal: 169.07 mm/Display Diagonal: 161mm						
Distance of the Antenna to the EUT surface/edge						
Antenna	Back Side	Front side	Left Edge	Right Edge	Top Edge	Bottom Edge
Main-Antenna	<25mm	<25mm	<25mm	<25mm	>25mm	<25mm
Second-Antenna	<25mm	<25mm	<25mm	>25mm	<25mm	>25mm
Bluetooth/Wi-Fi Antenna 1	<25mm	<25mm	>25mm	<25mm	<25mm	>25mm
Wi-Fi Antenna 2	<25mm	<25mm	<25mm	>25mm	<25mm	>25mm
Hotspot mode, Positions for SAR tests						
Mode	Back Side	Front side	Left Edge	Right Edge	Top Edge	Bottom Edge
Main-Antenna	Yes	Yes	Yes	Yes	No	Yes
Second-Antenna	Yes	Yes	Yes	No	Yes	No
Bluetooth/Wi-Fi Antenna 1	Yes	Yes	No	Yes	Yes	No
Wi-Fi Antenna 2	Yes	Yes	Yes	No	Yes	No

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

2. For smart phones with an overall diagonal dimension is 169.07mm. Per KDB 648474 D04, for smart phones with a display diagonal dimension $> 15.0\text{ cm}$ or an overall diagonal dimension $> 16.0\text{ cm}$, product specific 10-g SAR must be tested as a phablet to determine SAR compliance. For Phablet, Since hotspot mode 1-g reported SAR $< 1.2\text{ W/kg}$, product specific 10-g SAR is no required.

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

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

4. When the original highest measured SAR is $\geq 0.80\text{ W/kg}$, the measurement was repeated once.

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

10.2 Standalone SAR test exclusion considerations

Per KDB 447498 D01, the 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances ≤ 50 mm are determined by:

$[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm})] \cdot \sqrt{f(\text{GHz})} \leq 3.0$ for 1-g SAR and ≤ 7.5 for product specific 10-g SAR

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

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

Bluetooth (BT HIGH)	Distance (mm)	MAXPower (dBm)	Frequency (MHz)	Ratio	Evaluation
Body-worn	15	18.3	2480	7.10	Yes
Hotspot	10	18.3	2480	10.65	Yes
Product Specific 10-g SAR	5	18.3	2480	21.29	Yes

Bluetooth (BT NORMAL)	Distance (mm)	MAXPower (dBm)	Frequency (MHz)	Ratio	Evaluation
Head	5	11.00	2480	3.97	Yes
Body-worn	15	11.00	2480	1.32	No
Hotspot	10	11.00	2480	1.98	No
Product Specific 10-g SAR	5	11.00	2480	3.97	No

10.3 Measured SAR Results

Table 9: GSM 850(Main-antenna)

Test Position	Cover Type	Sensor	Distance	Time slot	Duty Cycle	Channel/Frequency (MHz)	Tune-up (dBm)	Measured power (dBm)	Limit of SAR 1.6 W/kg (mW/g)				Plot No.
									Measured SAR1g	Power Drift (dB)	Scaling Factor	Report SAR1g	
Head SAR													
Left Cheek	standard	off	0mm	GSM	1:8.3	190/836.6	33.80	32.76	0.071	0.055	1.27	0.091	/
Left Tilt	standard	off	0mm	GSM	1:8.3	190/836.6	33.80	32.76	0.034	0.032	1.27	0.044	/
Right Cheek	standard	off	0mm	GSM	1:8.3	190/836.6	33.80	32.76	0.103	0.085	1.27	0.131	37
Right Tilt	standard	off	0mm	GSM	1:8.3	190/836.6	33.80	32.76	0.034	0.053	1.27	0.044	/
Left Cheek	Battery2	off	0mm	GSM	1:8.3	190/836.6	33.80	32.76	0.065	0.042	1.27	0.083	/
Body-worn SAR													
Back Side	standard	off	15mm	GSM	1:8.3	190/836.6	33.80	32.76	0.137	-0.060	1.27	0.174	38
Front Side	standard	off	15mm	GSM	1:8.3	190/836.6	33.80	32.76	0.109	-0.070	1.27	0.138	/
Back Side	Battery2	off	15mm	GSM	1:8.3	190/836.6	33.80	32.76	0.102	0.013	1.27	0.130	/
Hotspot SAR													
Back Side	standard	off	10mm	2Txslots	1:4.15	190/836.6	30.80	29.48	0.181	-0.090	1.36	0.245	39
Front Side	standard	off	10mm	2Txslots	1:4.15	190/836.6	30.80	29.48	0.156	-0.070	1.36	0.211	/
Left Edge	standard	off	10mm	2Txslots	1:4.15	190/836.6	30.80	29.48	0.154	0.032	1.36	0.209	/
Right Edge	standard	off	10mm	2Txslots	1:4.15	190/836.6	30.80	29.48	0.103	0.180	1.36	0.140	/
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
Bottom Edge	standard	off	10mm	2Txslots	1:4.15	190/836.6	30.80	29.48	0.132	0.060	1.36	0.179	/
Back Side	Battery2	off	10mm	2Txslots	1:4.15	190/836.6	30.80	29.48	0.165	0.100	1.36	0.224	/
Note: 1. The value with blue color is the maximum SAR Value of each test band. 2. When multiple slots are used, SAR should be tested to account for the maximum source-based time-averaged output power.													

MAX Adjusted SAR												
Test Position	Cover Type	Sensor	Distance	Time slot	Duty Cycle	Channel/Frequency (MHz)	Full power (dBm)	Tune-up dBm	Report SAR1g (mW/g)	Scaling Factor	Full power Report SAR1g (mW/g)	0mm SAR
Back Side	standard	off	10mm	2Txslots	1:4.15	190/836.6	31.80	30.80	0.245	1.26	0.308	No
Front Side	standard	off	10mm	2Txslots	1:4.15	190/836.6	31.80	30.80	0.211	1.26	0.266	No
Left Edge	standard	off	10mm	2Txslots	1:4.15	190/836.6	31.80	30.80	0.209	1.26	0.263	No
Right Edge	standard	off	10mm	2Txslots	1:4.15	190/836.6	31.80	30.80	0.140	1.26	0.176	No
Top Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Bottom Edge	standard	off	10mm	2Txslots	1:4.15	190/836.6	31.80	30.80	0.179	1.26	0.225	No
Back Side	Battery2	off	10mm	2Txslots	1:4.15	190/836.6	31.80	30.80	0.224	1.26	0.282	No

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

Table 10: GSM 1900(Main-antenna)

Test Position	Cover Type	Sensor	Distance	Time slot	Duty Cycle	Channel/Frequency (MHz)	Tune-up (dBm)	Measured power (dBm)	Limit of SAR 1.6 W/kg (mW/g)				Plot No.
									Measured SAR1g	Power Drift (dB)	Scaling Factor	Report SAR1g	
Head SAR													
Left Cheek	standard	off	0mm	GSM	1:8.3	661/1880	30.80	30.34	0.065	0.038	1.11	0.072	/
Left Tilt	standard	off	0mm	GSM	1:8.3	661/1880	30.80	30.34	0.043	0.050	1.11	0.048	/
Right Cheek	standard	off	0mm	GSM	1:8.3	661/1880	30.80	30.34	0.069	0.033	1.11	0.077	40
Right Tilt	standard	off	0mm	GSM	1:8.3	661/1880	30.80	30.34	0.037	0.070	1.11	0.041	/
Right Cheek	Battery2	off	0mm	GSM	1:8.3	661/1880	30.80	30.34	0.059	0.100	1.11	0.066	/
Body-worn SAR													
Back Side	standard	off	15mm	GSM	1:8.3	661/1880	30.80	30.34	0.136	-0.090	1.11	0.151	41
Front Side	standard	off	15mm	GSM	1:8.3	661/1880	30.80	30.34	0.100	0.020	1.11	0.111	/
Back Side	Battery2	off	15mm	GSM	1:8.3	661/1880	30.80	30.34	0.135	0.036	1.11	0.150	/
Hotspot SAR													
Back Side	standard	off	10mm	2Txslots	1:4.15	661/1880	27.80	27.22	0.232	-0.050	1.14	0.265	/
Front Side	standard	off	10mm	2Txslots	1:4.15	661/1880	27.80	27.22	0.158	0.000	1.14	0.181	/
Left Edge	standard	off	10mm	2Txslots	1:4.15	661/1880	27.80	27.22	0.061	0.020	1.14	0.069	/
Right Edge	standard	off	10mm	2Txslots	1:4.15	661/1880	27.80	27.22	0.097	0.050	1.14	0.111	/
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
Bottom Edge	standard	off	10mm	2Txslots	1:4.15	661/1880	27.80	27.22	0.338	0.090	1.14	0.386	42
Bottom Edge	Battery2	off	10mm	2Txslots	1:4.15	661/1880	27.80	27.22	0.314	-0.054	1.14	0.359	/
Note: 1.The value with blue color is the maximum SAR Value of each test band. 2.When multiple slots are used, SAR should be tested to account for the maximum source-based time-averaged output power.													

MAX Adjusted SAR													
Test Position	Cover Type	Sensor	Distance	Time slot	Duty Cycle	Channel/Frequency (MHz)	Full power (dBm)	Tune-up dBm	Report SAR1g (mW/g)	Scaling Factor	Full power Report SAR1g (mW/g)	0mm SAR	
Back Side	standard	off	10mm	2Txslots	1:4.15	661/1880	28.80	27.80	0.265	1.26	0.334	No	
Front Side	standard	off	10mm	2Txslots	1:4.15	661/1880	28.80	27.80	0.181	1.26	0.228	No	
Left Edge	standard	off	10mm	2Txslots	1:4.15	661/1880	28.80	27.80	0.069	1.26	0.087	No	
Right Edge	standard	off	10mm	2Txslots	1:4.15	661/1880	28.80	27.80	0.111	1.26	0.140	No	
Top Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Bottom Edge	standard	off	10mm	2Txslots	1:4.15	661/1880	28.80	27.80	0.386	1.26	0.486	No	
Bottom Edge	Battery2	off	10mm	2Txslots	1:4.15	661/1880	28.80	27.80	0.359	1.26	0.452	No	
Note: According to 648474 D04 Handset SAR v01r03, For Phablet, Since hotspot mode 1-greportedSAR < 1.2 W/kg, Product Specific 10-g SAR is not required.													

Table 11: UMTS Band II(Main-antenna)

Test Position	Cover Type	Sensor	Distance	Channel Type	Duty Cycle	Channel/Frequency (MHz)	Tune-up (dBm)	Measured power (dBm)	Limit of SAR 1.6 W/kg (mW/g)				Plot No.
									Measured SAR 1g	Power Drift (dB)	Scaling Factor	Report SAR1g	
Head SAR													
Left Cheek	standard	off	0mm	RMC 12.2K	1:1	9400/1880	25.00	23.24	0.144	0.140	1.50	0.216	/
Left Tilt	standard	off	0mm	RMC 12.2K	1:1	9400/1880	25.00	23.24	0.093	0.010	1.50	0.139	/
Right Cheek	standard	off	0mm	RMC 12.2K	1:1	9400/1880	25.00	23.24	0.176	0.047	1.50	0.264	43
Right Tilt	standard	off	0mm	RMC 12.2K	1:1	9400/1880	25.00	23.24	0.098	0.022	1.50	0.147	/
Right Cheek	Battery2	off	0mm	RMC 12.2K	1:1	9400/1880	25.00	23.24	0.155	-0.020	1.50	0.232	/
Body-worn SAR													
Back Side	standard	off	15mm	RMC 12.2K	1:1	9400/1880	25.00	23.24	0.340	0.150	1.50	0.510	44
Front Side	standard	off	15mm	RMC 12.2K	1:1	9400/1880	25.00	23.24	0.274	-0.070	1.50	0.411	/
Back Side	Battery2	off	15mm	RMC 12.2K	1:1	9400/1880	25.00	23.24	0.308	0.018	1.50	0.462	/
Hotspot SAR													
Back Side	standard	off	10mm	RMC 12.2K	1:1	9400/1880	21.50	20.72	0.238	0.020	1.20	0.285	/
Front Side	standard	off	10mm	RMC 12.2K	1:1	9400/1880	21.50	20.72	0.198	0.040	1.20	0.237	/
Left Edge	standard	off	10mm	RMC 12.2K	1:1	9400/1880	21.50	20.72	0.101	0.090	1.20	0.121	/
Right Edge	standard	off	10mm	RMC 12.2K	1:1	9400/1880	21.50	20.72	0.092	0.110	1.20	0.110	/
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
Bottom Edge	standard	off	10mm	RMC 12.2K	1:1	9400/1880	21.50	20.72	0.412	0.020	1.20	0.493	45
Bottom Edge	Battery2	off	10mm	RMC 12.2K	1:1	9400/1880	21.50	20.72	0.371	0.041	1.20	0.444	/

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

2. When the maximum output power and tune-up tolerance specified for production units in a secondary mode is $\leq \frac{1}{4}$ dB higher than the primary mode or when the highest reported SAR of the primary mode is scaled by the ratio of specified maximum output power and tune-up tolerance of secondary to primary mode and the adjusted SAR is ≤ 1.2 W/kg, SAR measurement is not required for the secondary mode.

MAX Adjusted SAR												
Test Position	Cover Type	Sensor	Distance	Channel Type	Duty Cycle	Channel/Frequency (MHz)	Full power (dBm)	Tune-up dBm	Report SAR1g (mW/g)	Scaling Factor	Full power Report SAR1g (mW/g)	0mm SAR
Back Side	standard	off	10mm	RMC 12.2K	1:1	9400/1880	25.00	21.50	0.285	2.24	0.638	No
Front Side	standard	off	10mm	RMC 12.2K	1:1	9400/1880	25.00	21.50	0.237	2.24	0.531	No
Left Edge	standard	off	10mm	RMC 12.2K	1:1	9400/1880	25.00	21.50	0.121	2.24	0.271	No
Right Edge	standard	off	10mm	RMC 12.2K	1:1	9400/1880	25.00	21.50	0.110	2.24	0.246	No
Top Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Bottom Edge	standard	off	10mm	RMC 12.2K	1:1	9400/1880	25.00	21.50	0.493	2.24	1.104	No
Bottom Edge	Battery2	off	10mm	RMC 12.2K	1:1	9400/1880	25.00	21.50	0.444	2.24	0.994	No

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

Table 12: UMTS Band IV(Main-antenna)

Test Position	Cover Type	Sensor	Distance	Channel Type	Duty Cycle	Channel/Frequency (MHz)	Tune-up (dBm)	Measured power (dBm)	Limit of SAR 1.6 W/kg (mW/g)				Plot No.
									Measured SAR1g	Power Drift (dB)	Scaling Factor	Report SAR1g	
Head SAR													
Left Cheek	standard	off	0mm	RMC 12.2K	1:1	1413/1732.6	24.50	22.65	0.129	0.110	1.53	0.198	46
Left Tilt	standard	off	0mm	RMC 12.2K	1:1	1413/1732.6	24.50	22.65	0.057	0.110	1.53	0.087	/
Right Cheek	standard	off	0mm	RMC 12.2K	1:1	1413/1732.6	24.50	22.65	0.128	0.040	1.53	0.196	/
Right Tilt	standard	off	0mm	RMC 12.2K	1:1	1413/1732.6	24.50	22.65	0.070	0.026	1.53	0.108	/
Left Cheek	Battery2	off	0mm	RMC 12.2K	1:1	1413/1732.6	24.50	22.65	0.112	-0.050	1.53	0.171	/
Body-worn SAR													
Back Side	standard	off	15mm	RMC 12.2K	1:1	1413/1732.6	24.50	22.65	0.270	-0.020	1.53	0.413	47
Front Side	standard	off	15mm	RMC 12.2K	1:1	1413/1732.6	24.50	22.65	0.246	0.050	1.53	0.377	/
Back Side	Battery2	off	15mm	RMC 12.2K	1:1	1413/1732.6	24.50	22.65	0.250	0.013	1.53	0.383	/
Hotspot SAR													
Back Side	standard	off	10mm	RMC 12.2K	1:1	1413/1732.6	21.50	20.54	0.194	0.070	1.25	0.242	/
Front Side	standard	off	10mm	RMC 12.2K	1:1	1413/1732.6	21.50	20.54	0.131	-0.030	1.25	0.163	/
Left Edge	standard	off	10mm	RMC 12.2K	1:1	1413/1732.6	21.50	20.54	0.072	0.090	1.25	0.090	/
Right Edge	standard	off	10mm	RMC 12.2K	1:1	1413/1732.6	21.50	20.54	0.067	0.010	1.25	0.084	/
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
Bottom Edge	standard	off	10mm	RMC 12.2K	1:1	1413/1732.6	21.50	20.54	0.321	-0.050	1.25	0.400	48
Bottom Edge	Battery2	off	10mm	RMC 12.2K	1:1	1413/1732.6	21.50	20.54	0.292	-0.021	1.25	0.364	/

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

2. When the maximum output power and tune-up tolerance specified for production units in a secondary mode is $\leq \frac{1}{4}$ dB higher than the primary mode or when the highest reported SAR of the primary mode is scaled by the ratio of specified maximum output power and tune-up tolerance of secondary to primary mode and the adjusted SAR is ≤ 1.2 W/kg, SAR measurement is not required for the secondary mode.

MAX Adjusted SAR

Test Position	Cover Type	Channel/Frequency(MHz)	Full power (dBm)	Tune-up (dBm)	Report SAR1g (mW/g)	Scaling Factor	Full power Report SAR1g(mW/g)	0mm SAR
Back Side	standard	1413/1732.6	24.50	21.50	0.242	2.00	0.483	No
Front Side	standard	1413/1732.6	24.50	21.50	0.163	2.00	0.325	No
Left Edge	standard	1413/1732.6	24.50	21.50	0.090	2.00	0.180	No
Right Edge	standard	1413/1732.6	24.50	21.50	0.084	2.00	0.168	No
Top Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Bottom Edge	standard	1413/1732.6	24.50	21.50	0.400	2.00	0.798	No
Bottom Edge	Battery2	1413/1732.6	24.50	21.50	0.364	2.00	0.726	No

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

Table 13: UMTS Band V(Main-antenna)

Test Position	Cover Type	Sensor	Distance	Channel Type	Duty Cycle	Channel/Frequency (MHz)	Tune-up (dBm)	Measured power (dBm)	Limit of SAR 1.6 W/kg (mW/g)				Plot No.
									Measured SAR 1g	Power Drift (dB)	Scaling Factor	Report SAR1g	
Head SAR													
Left Cheek	standard	off	0mm	RMC 12.2K	1:1	4183/836.6	25.00	23.92	0.108	0.060	1.28	0.138	/
Left Tilt	standard	off	0mm	RMC 12.2K	1:1	4183/836.6	25.00	23.92	0.056	0.190	1.28	0.072	/
Right Cheek	standard	off	0mm	RMC 12.2K	1:1	4183/836.6	25.00	23.92	0.147	0.070	1.28	0.189	49
Right Tilt	standard	off	0mm	RMC 12.2K	1:1	4183/836.6	25.00	23.92	0.050	0.160	1.28	0.064	/
Right Cheek	Battery2	off	0mm	RMC 12.2K	1:1	4183/836.6	25.00	23.92	0.116	0.099	1.28	0.149	/
Body-worn SAR													
Back Side	standard	off	15mm	RMC 12.2K	1:1	4183/836.6	25.00	23.92	0.202	0.040	1.28	0.259	50
Front Side	standard	off	15mm	RMC 12.2K	1:1	4183/836.6	25.00	23.92	0.155	-0.010	1.28	0.199	/
Back Side	Battery2	off	15mm	RMC 12.2K	1:1	4183/836.6	25.00	23.92	0.168	0.028	1.28	0.215	/
Hotspot SAR													
Back Side	standard	off	10mm	RMC 12.2K	1:1	4183/836.6	24.00	22.92	0.366	0.070	1.28	0.469	51
Front Side	standard	off	10mm	RMC 12.2K	1:1	4183/836.6	24.00	22.92	0.276	0.000	1.28	0.354	/
Left Edge	standard	off	10mm	RMC 12.2K	1:1	4183/836.6	24.00	22.92	0.284	0.060	1.28	0.364	/
Right Edge	standard	off	10mm	RMC 12.2K	1:1	4183/836.6	24.00	22.92	0.155	0.060	1.28	0.199	/
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
Bottom Edge	standard	off	10mm	RMC 12.2K	1:1	4183/836.6	24.00	22.92	0.203	0.030	1.28	0.260	/
Back Side	Battery2	off	10mm	RMC 12.2K	1:1	4183/836.6	24.00	22.92	0.302	-0.014	1.28	0.387	/

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

2. When the maximum output power and tune-up tolerance specified for production units in a secondary mode is $\leq \frac{1}{4}$ dB higher than the primary mode or when the highest reported SAR of the primary mode is scaled by the ratio of specified maximum output power and tune-up tolerance of secondary to primary mode and the adjusted SAR is ≤ 1.2 W/kg, SAR measurement is not required for the secondary mode.

MAX Adjusted SAR

Test Position	Cover Type	Channel/Frequency(MHz)	Full power (dBm)	Tune-up (dBm)	Report SAR1g (mW/g)	Scaling Factor	Full power Report SAR1g(mW/g)	0mm SAR
Back Side	standard	4183/836.6	25.00	24.00	0.469	1.26	0.590	No
Front Side	standard	4183/836.6	25.00	24.00	0.354	1.26	0.446	No
Left Edge	standard	4183/836.6	25.00	24.00	0.364	1.26	0.458	No
Right Edge	standard	4183/836.6	25.00	24.00	0.199	1.26	0.251	No
Top Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Bottom Edge	standard	4183/836.6	25.00	24.00	0.260	1.26	0.327	No
Back Side	Battery2	4183/836.6	25.00	24.00	0.387	1.26	0.487	No

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

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

Test Position	Cover Type	Sensor	Distance	Duty Cycle	RB allocation	RB offset	Channel/Frequency (MHz)	Tune-up (dBm)	Measured power (dBm)	Limit of SAR 1.6 W/kg (mW/g)				Plot No.
										Measured SAR1g	Power Drift (dB)	Scaling Factor	Report SAR1g	
Head SAR (QPSK)														
Left Cheek	standard	off	0mm	1:1	1	0	18900/1880	24.00	23.18	0.123	0.170	1.21	0.149	/
Left Tilt	standard	off	0mm	1:1	1	0	18900/1880	24.00	23.18	0.076	0.110	1.21	0.092	/
Right Cheek	standard	off	0mm	1:1	1	0	18900/1880	24.00	23.18	0.139	0.069	1.21	0.168	52
Right Tilt	standard	off	0mm	1:1	1	0	18900/1880	24.00	23.18	0.082	-0.120	1.21	0.099	/
Left Cheek	standard	off	0mm	1:1	50%	0	18900/1880	23.00	22.01	0.095	0.130	1.26	0.119	/
Left Tilt	standard	off	0mm	1:1	50%	0	18900/1880	23.00	22.01	0.061	0.023	1.26	0.077	/
Right Cheek	standard	off	0mm	1:1	50%	0	18900/1880	23.00	22.01	0.117	0.055	1.26	0.147	/
Right Tilt	standard	off	0mm	1:1	50%	0	18900/1880	23.00	22.01	0.061	0.110	1.26	0.077	/
Right Cheek	Battery2	off	0mm	1:1	1	0	18900/1880	24.00	23.18	0.133	0.100	1.21	0.161	/
Body-worn SAR (QPSK)														
Back Side	standard	off	15mm	1:1	1	0	18900/1880	24.00	23.18	0.319	0.040	1.21	0.385	53
Front Side	standard	off	15mm	1:1	1	0	18900/1880	24.00	23.18	0.244	-0.020	1.21	0.295	/
Back Side	standard	off	15mm	1:1	50%	0	18900/1880	23.00	22.01	0.250	0.120	1.26	0.314	/
Front Side	standard	off	15mm	1:1	50%	0	18900/1880	23.00	22.01	0.191	0.150	1.26	0.240	/
Back Side	Battery2	off	15mm	1:1	1	0	18900/1880	24.00	23.18	0.286	0.016	1.21	0.345	/
Hotspot SAR(QPSK)														
Back Side	standard	off	10mm	1:1	1	0	18900/1880	21.50	20.63	0.310	-0.100	1.22	0.379	/
Front Side	standard	off	10mm	1:1	1	0	18900/1880	21.50	20.63	0.199	0.030	1.22	0.243	/
Left Edge	standard	off	10mm	1:1	1	0	18900/1880	21.50	20.63	0.080	0.038	1.22	0.097	/
Right Edge	standard	off	10mm	1:1	1	0	18900/1880	21.50	20.63	0.113	-0.120	1.22	0.138	/
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
Bottom Edge	standard	off	10mm	1:1	1	0	18900/1880	21.50	20.63	0.415	0.080	1.22	0.507	54
Back Side	standard	off	10mm	1:1	50%	50	18900/1880	21.50	20.60	0.316	0.010	1.23	0.389	/
Front Side	standard	off	10mm	1:1	50%	50	18900/1880	21.50	20.60	0.295	0.057	1.23	0.363	/
Left Edge	standard	off	10mm	1:1	50%	50	18900/1880	21.50	20.60	0.072	0.030	1.23	0.088	/
Right Edge	standard	off	10mm	1:1	50%	50	18900/1880	21.50	20.60	0.101	0.040	1.23	0.124	/
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
Bottom Edge	standard	off	10mm	1:1	50%	50	18900/1880	21.50	20.60	0.409	0.030	1.23	0.503	/
Bottom Edge	Battery2	off	10mm	1:1	1	0	18900/1880	21.50	20.63	0.392	0.015	1.22	0.479	/
Note: 1. The value with blue color is the maximum SAR Value of each test band. 2. For QPSK with 100% RB allocation, SAR is required when and the highest reported SAR for 1 RB and 50% RB allocation in are \geq 50% limit(10g).														

MAX Adjusted SAR

Test Position	Cover Type	Sensor	Distance	Duty Cycle	RB allocation	RB offset	Channel/Frequency (MHz)	Full power (dBm)	Tune-up dBm	Report SAR1g (mW/g)	Scaling Factor	Full power Report SAR1g (mW/g)	0mm SAR
Back Side	standard	off	10mm	1:1	1	0	18900/1880	24.00	21.50	0.379	1.78	0.674	No
Front Side	standard	off	10mm	1:1	1	0	18900/1880	24.00	21.50	0.243	1.78	0.432	No
Left Edge	standard	off	10mm	1:1	1	0	18900/1880	24.00	21.50	0.097	1.78	0.172	No
Right Edge	standard	off	10mm	1:1	1	0	18900/1880	24.00	21.50	0.138	1.78	0.245	No
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
Bottom Edge	standard	off	10mm	1:1	1	0	18900/1880	24.00	21.50	0.507	1.78	0.902	No
Back Side	standard	off	10mm	1:1	50%	50	18900/1880	24.00	21.50	0.389	1.78	0.692	No
Front Side	standard	off	10mm	1:1	50%	50	18900/1880	24.00	21.50	0.363	1.78	0.646	No
Left Edge	standard	off	10mm	1:1	50%	50	18900/1880	24.00	21.50	0.088	1.78	0.156	No
Right Edge	standard	off	10mm	1:1	50%	50	18900/1880	24.00	21.50	0.124	1.78	0.221	No
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
Bottom Edge	standard	off	10mm	1:1	50%	50	18900/1880	24.00	21.50	0.503	1.78	0.894	No
Bottom Edge	Battery2	off	10mm	1:1	1	0	18900/1880	24.00	21.50	0.479	1.78	0.852	No

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

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

Test Position	Cover Type	Sensor	Distance	Duty Cycle	RB allocation	RB offset	Channel/Frequency (MHz)	Tune-up (dBm)	Measured power (dBm)	Limit of SAR 1.6 W/kg (mW/g)				Plot No.
										Measured SAR1g	Power Drift (dB)	Scaling Factor	Report SAR1g	
Head SAR (QPSK)														
Left Cheek	standard	off	0mm	1:1	1	0	20050/1720	23.50	22.63	0.119	0.046	1.22	0.145	55
Left Tilt	standard	off	0mm	1:1	1	0	20050/1720	23.50	22.63	0.051	0.150	1.22	0.063	/
Right Cheek	standard	off	0mm	1:1	1	0	20050/1720	23.50	22.63	0.069	0.020	1.22	0.084	/
Right Tilt	standard	off	0mm	1:1	1	0	20050/1720	23.50	22.63	0.054	0.025	1.22	0.066	/
Left Cheek	standard	off	0mm	1:1	50%	0	20175/1732.5	22.50	21.81	0.084	0.063	1.17	0.098	/
Left Tilt	standard	off	0mm	1:1	50%	0	20175/1732.5	22.50	21.81	0.035	0.170	1.17	0.041	/
Right Cheek	standard	off	0mm	1:1	50%	0	20175/1732.5	22.50	21.81	0.066	0.045	1.17	0.077	/
Right Tilt	standard	off	0mm	1:1	50%	0	20175/1732.5	22.50	21.81	0.042	-0.010	1.17	0.049	/
Left Cheek	Battery2	off	0mm	1:1	1	0	20050/1720	23.50	22.63	0.102	0.014	1.22	0.125	/
Body-worn SAR (QPSK)														
Back Side	standard	off	15mm	1:1	1	0	20050/1720	23.50	22.63	0.231	0.000	1.22	0.282	56
Front Side	standard	off	15mm	1:1	1	0	20050/1720	23.50	22.63	0.206	0.020	1.22	0.252	/
Back Side	standard	off	15mm	1:1	50%	0	20175/1732.5	22.50	21.81	0.181	0.020	1.17	0.212	/
Front Side	standard	off	15mm	1:1	50%	0	20175/1732.5	22.50	21.81	0.154	0.010	1.17	0.181	/
Back Side	Battery2	off	15mm	1:1	1	0	20050/1720	23.50	22.63	0.210	0.030	1.22	0.257	/
Hotspot SAR(QPSK)														
Back Side	standard	off	10mm	1:1	1	0	20175/1732.5	21.00	20.00	0.170	0.180	1.26	0.214	/
Front Side	standard	off	10mm	1:1	1	0	20175/1732.5	21.00	20.00	0.208	0.160	1.26	0.262	/
Left Edge	standard	off	10mm	1:1	1	0	20175/1732.5	21.00	20.00	0.071	0.120	1.26	0.089	/
Right Edge	standard	off	10mm	1:1	1	0	20175/1732.5	21.00	20.00	0.098	0.170	1.26	0.123	/
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
Bottom Edge	standard	off	10mm	1:1	1	0	20175/1732.5	21.00	20.00	0.382	-0.080	1.26	0.481	57
Back Side	standard	off	10mm	1:1	50%	0	20175/1732.5	21.00	19.95	0.162	0.050	1.27	0.206	/
Front Side	standard	off	10mm	1:1	50%	0	20175/1732.5	21.00	19.95	0.194	0.070	1.27	0.247	/
Left Edge	standard	off	10mm	1:1	50%	0	20175/1732.5	21.00	19.95	0.064	0.090	1.27	0.082	/
Right Edge	standard	off	10mm	1:1	50%	0	20175/1732.5	21.00	19.95	0.076	0.080	1.27	0.097	/
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
Bottom Edge	standard	off	10mm	1:1	50%	0	20175/1732.5	21.00	19.95	0.370	-0.060	1.27	0.471	/
Bottom Edge	Battery2	off	10mm	1:1	1	0	20175/1732.5	21.00	19.95	0.345	0.014	1.27	0.439	/
Note: 1. The value with blue color is the maximum SAR Value of each test band. 2. For QPSK with 100% RB allocation, SAR is required when and the highest reported SAR for 1 RB and 50% RB allocation in are \geq 50% limit(10g).														

MAX Adjusted SAR													
Test Position	Cover Type	Sensor	Distance	Duty Cycle	RB allocation	RB offset	Channel/Frequency (MHz)	Full power (dBm)	Tune-up dBm	Report SAR1g (mW/g)	Scaling Factor	Full power Report SAR1g (mW/g)	0mm SAR
Back Side	standard	off	10mm	1:1	1	0	20175/1732.5	23.50	21.00	0.214	1.78	0.381	No
Front Side	standard	off	10mm	1:1	1	0	20175/1732.5	23.50	21.00	0.262	1.78	0.466	No
Left Edge	standard	off	10mm	1:1	1	0	20175/1732.5	23.50	21.00	0.089	1.78	0.158	No
Right Edge	standard	off	10mm	1:1	1	0	20175/1732.5	23.50	21.00	0.123	1.78	0.219	No
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
Bottom Edge	standard	off	10mm	1:1	1	0	20175/1732.5	23.50	21.00	0.481	1.78	0.855	No
Back Side	standard	off	10mm	1:1	50%	0	20175/1732.5	23.50	21.00	0.206	1.78	0.366	No
Front Side	standard	off	10mm	1:1	50%	0	20175/1732.5	23.50	21.00	0.247	1.78	0.439	No
Left Edge	standard	off	10mm	1:1	50%	0	20175/1732.5	23.50	21.00	0.082	1.78	0.146	No
Right Edge	standard	off	10mm	1:1	50%	0	20175/1732.5	23.50	21.00	0.097	1.78	0.172	No
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
Bottom Edge	standard	off	10mm	1:1	50%	0	20175/1732.5	23.50	21.00	0.471	1.78	0.838	No
Bottom Edge	Battery2	off	10mm	1:1	1	0	20175/1732.5	23.50	21.00	0.439	1.78	0.781	No

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

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

Test Position	Cover Type	Sensor	Distance	Duty Cycle	RB allocation	RB offset	Channel/Frequency (MHz)	Tune-up (dBm)	Measured power (dBm)	Limit of SAR 1.6 W/kg (mW/g)				Plot No.
										Measured SAR1g	Power Drift (dB)	Scaling Factor	Report SAR1g	
Head SAR (QPSK)														
Left Cheek	standard	off	0mm	1:1	1	25	20525/836.5	25.00	24.17	0.108	0.138	1.21	0.131	/
Left Tilt	standard	off	0mm	1:1	1	25	20525/836.5	25.00	24.17	0.057	0.029	1.21	0.069	/
Right Cheek	standard	off	0mm	1:1	1	25	20525/836.5	25.00	24.17	0.147	0.035	1.21	0.178	58
Right Tilt	standard	off	0mm	1:1	1	25	20525/836.5	25.00	24.17	0.071	0.170	1.21	0.085	/
Left Cheek	standard	off	0mm	1:1	50%	0	20600/844	24.00	22.98	0.088	0.112	1.26	0.111	/
Left Tilt	standard	off	0mm	1:1	50%	0	20600/844	24.00	22.98	0.049	0.053	1.26	0.062	/
Right Cheek	standard	off	0mm	1:1	50%	0	20600/844	24.00	22.98	0.120	-0.040	1.26	0.152	/
Right Tilt	standard	off	0mm	1:1	50%	0	20600/844	24.00	22.98	0.048	0.059	1.26	0.061	/
Right Cheek	Battery2	off	0mm	1:1	1	25	20525/836.5	25.00	24.17	0.140	0.068	1.21	0.169	/
Body-worn SAR (QPSK)														
Back Side	standard	off	15mm	1:1	1	25	20525/836.5	25.00	24.17	0.199	0.000	1.21	0.241	59
Front Side	standard	off	15mm	1:1	1	25	20525/836.5	25.00	24.17	0.169	-0.020	1.21	0.205	/
Back Side	standard	off	15mm	1:1	50%	0	20600/844	24.00	22.98	0.158	0.070	1.26	0.200	/
Front Side	standard	off	15mm	1:1	50%	0	20600/844	24.00	22.98	0.132	0.080	1.26	0.167	/
Back Side	Battery2	off	15mm	1:1	1	25	20525/836.5	25.00	24.17	0.173	0.040	1.21	0.209	/
Hotspot SAR(QPSK)														
Back Side	standard	off	10mm	1:1	1	0	20525/836.5	24.00	22.72	0.303	0.030	1.34	0.407	/
Front Side	standard	off	10mm	1:1	1	0	20525/836.5	24.00	22.72	0.230	0.000	1.34	0.309	/
Left Edge	standard	off	10mm	1:1	1	0	20525/836.5	24.00	22.72	0.112	0.090	1.34	0.150	/
Right Edge	standard	off	10mm	1:1	1	0	20525/836.5	24.00	22.72	0.109	0.110	1.34	0.146	/
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
Bottom Edge	standard	off	10mm	1:1	1	0	20525/836.5	24.00	22.72	0.195	-0.028	1.34	0.262	/
Back Side	standard	off	10mm	1:1	50%	0	20450/829	24.00	22.68	0.305	0.070	1.36	0.413	60
Front Side	standard	off	10mm	1:1	50%	0	20450/829	24.00	22.68	0.249	0.052	1.36	0.337	/
Left Edge	standard	off	10mm	1:1	50%	0	20450/829	24.00	22.68	0.109	0.190	1.36	0.148	/
Right Edge	standard	off	10mm	1:1	50%	0	20450/829	24.00	22.68	0.098	0.041	1.36	0.133	/
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
Bottom Edge	standard	off	10mm	1:1	50%	0	20450/829	24.00	22.68	0.193	0.000	1.36	0.262	/
Back Side	Battery2	off	10mm	1:1	50%	0	20450/829	24.00	22.68	0.270	0.035	1.36	0.366	/
Note: 1. The value with blue color is the maximum SAR Value of each test band. 2. For QPSK with 100% RB allocation, SAR is required when and the highest reported SAR for 1 RB and 50% RB allocation in are \geq 50% limit(10g).														

MAX Adjusted SAR													
Test Position	Cover Type	Sensor	Distance	Duty Cycle	RB allocation	RB offset	Channel/Frequency (MHz)	Full power (dBm)	Tune-up dBm	Report SAR1g (mW/g)	Scaling Factor	Full power Report SAR1g (mW/g)	0mm SAR
Back Side	standard	off	10mm	1:1	1	0	20525/836.5	25.00	24.00	0.407	1.26	0.512	No
Front Side	standard	off	10mm	1:1	1	0	20525/836.5	25.00	24.00	0.309	1.26	0.389	No
Left Edge	standard	off	10mm	1:1	1	0	20525/836.5	25.00	24.00	0.150	1.26	0.189	No
Right Edge	standard	off	10mm	1:1	1	0	20525/836.5	25.00	24.00	0.146	1.26	0.184	No
Top Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	25.00	N/A	N/A	N/A	N/A	N/A
Bottom Edge	standard	off	10mm	1:1	1	0	20525/836.5	25.00	24.00	0.262	1.26	0.330	No
Back Side	standard	off	10mm	1:1	50%	0	20450/829	25.00	24.00	0.413	1.26	0.520	No
Front Side	standard	off	10mm	1:1	50%	0	20450/829	25.00	24.00	0.337	1.26	0.424	No
Left Edge	standard	off	10mm	1:1	50%	0	20450/829	25.00	24.00	0.148	1.26	0.186	No
Right Edge	standard	off	10mm	1:1	50%	0	20450/829	25.00	24.00	0.133	1.26	0.167	No
Top Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	25.00	N/A	N/A	N/A	N/A	N/A
Bottom Edge	standard	off	10mm	1:1	50%	0	20450/829	25.00	24.00	0.262	1.26	0.330	No
Back Side	Battery2	off	10mm	1:1	1	0	20450/829	25.00	24.00	0.366	1.26	0.461	No

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

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

Test Position	Cover Type	Sensor	Distance	Duty Cycle	RB allocation	RB offset	Channel/Frequency (MHz)	Tune-up (dBm)	Measured power (dBm)	Limit of SAR 1.6 W/kg (mW/g)				Plot No.
										Measured SAR1g	Power Drift (dB)	Scaling Factor	Report SAR1g	
Head SAR (QPSK)														
Left Cheek	standard	off	0mm	1:1	1	99	21100/2535	24.00	23.26	0.133	0.024	1.19	0.158	/
Left Tilt	standard	off	0mm	1:1	1	99	21100/2535	24.00	23.26	0.097	0.136	1.19	0.115	/
Right Cheek	standard	off	0mm	1:1	1	99	21100/2535	24.00	23.26	0.181	0.118	1.19	0.215	61
Right Tilt	standard	off	0mm	1:1	1	99	21100/2535	24.00	23.26	0.020	0.126	1.19	0.023	/
Left Cheek	standard	off	0mm	1:1	50%	50	21100/2535	23.00	22.27	0.109	0.179	1.18	0.129	/
Left Tilt	standard	off	0mm	1:1	50%	50	21100/2535	23.00	22.27	0.082	0.150	1.18	0.097	/
Right Cheek	standard	off	0mm	1:1	50%	50	21100/2535	23.00	22.27	0.139	0.048	1.18	0.164	/
Right Tilt	standard	off	0mm	1:1	50%	50	21100/2535	23.00	22.27	0.026	0.023	1.18	0.031	/
Right Cheek	standard	off	0mm	1:1	1	0	21350/2560(PCC)	24.00	22.60	0.11	0.11	1.38	0.15	/
					1	99	21152/2540.2(SCC)							
Right Cheek	Battery2	off	0mm	1:1	1	99	21100/2535	24.00	23.26	0.145	0.026	1.19	0.172	/
Body-worn SAR (QPSK)														
Back Side	standard	off	15mm	1:1	1	99	21100/2535	24.00	23.26	0.341	0.043	1.19	0.404	62
Front Side	standard	off	15mm	1:1	1	99	21100/2535	24.00	23.26	0.241	0.036	1.19	0.286	/
Back Side	standard	off	15mm	1:1	50%	50	21100/2535	23.00	22.27	0.271	0.080	1.18	0.321	/
Front Side	standard	off	15mm	1:1	50%	50	21100/2535	23.00	22.27	0.185	0.074	1.18	0.219	/
Back Side	standard	off	15mm	1:1	1	0	21350/2560(PCC)	24.00	22.60	0.314	0.012	1.38	0.433	/
					1	99	21152/2540.2(SCC)							
Back Side	Battery2	off	15mm	1:1	1	99	21100/2535	24.00	23.26	0.301	0.024	1.19	0.357	/
Hotspot SAR(QPSK)														
Back Side	standard	off	10mm	1:1	1	99	21350/2560	20.50	19.72	0.259	-0.040	1.20	0.310	/
Front Side	standard	off	10mm	1:1	1	99	21350/2560	20.50	19.72	0.191	0.099	1.20	0.229	/
Left Edge	standard	off	10mm	1:1	1	99	21350/2560	20.50	19.72	0.067	0.087	1.20	0.080	/
Right Edge	standard	off	10mm	1:1	1	99	21350/2560	20.50	19.72	0.094	0.034	1.20	0.112	/
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
Bottom Edge	standard	on	10mm	1:1	1	0	21350/2560	19.00	18.55	0.304	0.021	1.11	0.337	/
Bottom Edge	standard	off	11mm	1:1	1	99	21350/2560	20.50	19.72	0.392	0.090	1.20	0.469	63
Back Side	standard	off	10mm	1:1	50%	50	21350/2560	20.50	19.62	0.249	0.040	1.22	0.305	/
Front Side	standard	off	10mm	1:1	50%	50	21350/2560	20.50	19.62	0.185	0.064	1.22	0.227	/
Left Edge	standard	off	10mm	1:1	50%	50	21350/2560	20.50	19.62	0.057	0.087	1.22	0.070	/
Right Edge	standard	off	10mm	1:1	50%	50	21350/2560	20.50	19.62	0.061	-0.023	1.22	0.075	/

Top Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Bottom Edge	standard	on	10mm	1:1	50%	50	21350/2560	19.00	18.30	0.294	0.029	1.17	0.345	/
Bottom Edge	standard	off	11mm	1:1	50%	50	21350/2560	20.50	19.62	0.245	-0.098	1.22	0.300	/
Bottom Edge	standard	off	11mm	1:1	1	0	21350/2560(PCC)	20.50	19.82	0.279	0.001	1.17	0.326	/
					1	99	21152/2540.2(SCC)							
Bottom Edge	Battery2	off	11mm	1:1	1	99	21350/2560	20.50	19.72	0.360	0.017	1.20	0.431	/

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

2. For QPSK with 100% RB allocation, SAR is required when and the highest reported SAR for 1 RB and 50% RB allocation in are \geq 50% limit(10g).

MAX Adjusted SAR

Test Position	Cover Type	Sensor	Distance	Duty Cycle	RB allocation	RB offset	Channel/Frequency (MHz)	Full power (dBm)	Tune-up dBm	Report SAR1g (mW/g)	Scaling Factor	Full power Report SAR1g (mW/g)	0mm SAR
Back Side	standard	off	10mm	1:1	1	99	21350/2560	24.00	20.50	0.310	2.24	0.694	No
Front Side	standard	off	10mm	1:1	1	99	21350/2560	24.00	20.50	0.229	2.24	0.513	No
Left Edge	standard	off	10mm	1:1	1	99	21350/2560	24.00	20.50	0.080	2.24	0.179	No
Right Edge	standard	off	10mm	1:1	1	99	21350/2560	24.00	20.50	0.112	2.24	0.251	No
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
Bottom Edge	standard	on	10mm	1:1	1	0	21350/2560	24.00	19.00	0.337	3.16	1.066	No
Bottom Edge	standard	off	11mm	1:1	1	99	21350/2560	24.00	20.50	0.469	2.24	1.050	No
Back Side	standard	off	10mm	1:1	50%	50	21350/2560	24.00	20.50	0.305	2.24	0.683	No
Front Side	standard	off	10mm	1:1	50%	50	21350/2560	24.00	20.50	0.227	2.24	0.508	No
Left Edge	standard	off	10mm	1:1	50%	50	21350/2560	24.00	20.50	0.070	2.24	0.157	No
Right Edge	standard	off	10mm	1:1	50%	50	21350/2560	24.00	20.50	0.075	N/A	N/A	No
Top Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	#VALUE!	#VALUE!	N/A
Bottom Edge	standard	on	10mm	1:1	50%	50	21350/2560	24.00	19.00	0.345	3.16	1.091	No
Bottom Edge	standard	off	11mm	1:1	50%	50	21350/2560	24.00	20.50	0.300	2.24	0.672	No
Bottom Edge	standard	off	11mm	1:1	1	0	21350/2560(PCC)	24.00	20.50	0.326	2.24	0.730	No
					1	99	21152/2540.2(SCC)						
Bottom Edge	Battery2	off	11mm	1:1	1	99	21350/2560	24.00	20.50	0.431	2.24	0.965	No

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

Table 18: LTE Band 12 (10MHz, Main-antenna)

Test Position	Cover Type	Sensor	Distance	Duty Cycle	RB allocation	RB offset	Channel/Frequency (MHz)	Tune-up (dBm)	Measured power (dBm)	Limit of SAR 1.6 W/kg (mW/g)				Plot No.
										Measured SAR1g	Power Drift (dB)	Scaling Factor	Report SAR1g	
Head SAR (QPSK)														
Left Cheek	standard	off	0mm	1:1	1	49	23095/707.5	25.00	24.04	0.083	0.112	1.25	0.103	/
Left Tilt	standard	off	0mm	1:1	1	49	23095/707.5	25.00	24.04	0.044	0.024	1.25	0.055	/
Right Cheek	standard	off	0mm	1:1	1	49	23095/707.5	25.00	24.04	0.104	0.065	1.25	0.130	64
Right Tilt	standard	off	0mm	1:1	1	49	23095/707.5	25.00	24.04	0.036	0.031	1.25	0.045	/
Left Cheek	standard	off	0mm	1:1	50%	25	23095/707.5	24.00	23.02	0.076	0.074	1.25	0.095	/
Left Tilt	standard	off	0mm	1:1	50%	25	23095/707.5	24.00	23.02	0.040	0.112	1.25	0.050	/
Right Cheek	standard	off	0mm	1:1	50%	25	23095/707.5	24.00	23.02	0.086	0.095	1.25	0.108	/
Right Tilt	standard	off	0mm	1:1	50%	25	23095/707.5	24.00	23.02	0.040	0.026	1.25	0.050	/
Right Cheek	Battery2	off	0mm	1:1	1	49	23095/707.5	25.00	24.04	0.094	0.075	1.25	0.117	/
Body-worn SAR (QPSK)														
Back Side	standard	off	15mm	1:1	1	49	23095/707.5	25.00	24.04	0.219	-0.020	1.25	0.273	65
Front Side	standard	off	15mm	1:1	1	49	23095/707.5	25.00	24.04	0.201	-0.027	1.25	0.251	/
Back Side	standard	off	15mm	1:1	50%	25	23095/707.5	24.00	23.02	0.183	0.050	1.25	0.229	/
Front Side	standard	off	15mm	1:1	50%	25	23095/707.5	24.00	23.02	0.168	0.010	1.25	0.211	/
Back Side	Battery2	off	15mm	1:1	1	49	23095/707.5	25.00	24.04	0.192	0.033	1.25	0.239	/
Hotspot SAR(QPSK)														
Back Side	standard	off	10mm	1:1	1	25	23095/707.5	24.50	23.40	0.284	-0.040	1.29	0.366	66
Front Side	standard	off	10mm	1:1	1	25	23095/707.5	24.50	23.40	0.231	-0.150	1.29	0.298	/
Left Edge	standard	off	10mm	1:1	1	25	23095/707.5	24.50	23.40	0.067	0.120	1.29	0.086	/
Right Edge	standard	off	10mm	1:1	1	25	23095/707.5	24.50	23.40	0.081	-0.010	1.29	0.104	/
Top Edge	N/A	N/A	N/A	1:1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Bottom Edge	standard	off	10mm	1:1	1	25	23095/707.5	24.50	23.40	0.101	0.010	1.29	0.130	/
Back Side	standard	off	10mm	1:1	50%	13	23060/704	24.00	22.78	0.271	0.060	1.32	0.359	/
Front Side	standard	off	10mm	1:1	50%	13	23060/704	24.00	22.78	0.216	0.090	1.32	0.286	/
Left Edge	standard	off	10mm	1:1	50%	13	23060/704	24.00	22.78	0.059	0.100	1.32	0.078	/
Right Edge	standard	off	10mm	1:1	50%	13	23060/704	24.00	22.78	0.061	-0.120	1.32	0.081	/
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
Bottom Edge	standard	off	10mm	1:1	50%	13	23060/704	24.00	22.78	0.097	0.080	1.32	0.128	/
Back Side	Battery2	off	10mm	1:1	1	25	23095/707.5	24.50	23.40	0.268	0.016	1.29	0.345	/
<p>Note: 1. The value with blue color is the maximum SAR Value of each test band.</p> <p>2. For QPSK with 100% RB allocation, SAR is required when and the highest reported SAR for 1 RB and 50% RB allocation in are $\geq 50\%$ limit(10g).</p>														

MAX Adjusted SAR

Test Position	Cover Type	Sensor	Distance	Duty Cycle	RB allocation	RB offset	Channel/Frequency (MHz)	Full power (dBm)	Tune-up dBm	Report SAR1g (mW/g)	Scaling Factor	Full power Report SAR1g (mW/g)	0mm SAR
Back Side	standard	off	10mm	1:1	1	25	23095/707.5	25.00	24.50	0.366	1.12	0.411	No
Front Side	standard	off	10mm	1:1	1	25	23095/707.5	25.00	24.50	0.298	1.12	0.334	No
Left Edge	standard	off	10mm	1:1	1	25	23095/707.5	25.00	24.50	0.086	1.12	0.096	No
Right Edge	standard	off	10mm	1:1	1	25	23095/707.5	25.00	24.50	0.104	1.12	0.117	No
Top Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	25.00	N/A	N/A	N/A	N/A	N/A
Bottom Edge	standard	off	10mm	1:1	1	25	23095/707.5	25.00	24.50	0.130	1.12	0.146	No
Back Side	standard	off	10mm	1:1	50%	13	23060/704	24.50	24.00	0.359	1.12	0.403	No
Front Side	standard	off	10mm	1:1	50%	13	23060/704	24.50	24.00	0.286	1.12	0.321	No
Left Edge	standard	off	10mm	1:1	50%	13	23060/704	24.50	24.00	0.078	1.12	0.088	No
Right Edge	standard	off	10mm	1:1	50%	13	23060/704	24.50	24.00	0.081	1.12	0.091	No
Top Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	24.50	N/A	N/A	N/A	N/A	N/A
Bottom Edge	standard	off	10mm	1:1	50%	13	23060/704	24.50	24.00	0.128	1.12	0.144	No
Back Side	Battery2	off	10mm	1:1	1	25	23095/707.5	25.00	24.50	0.345	1.12	0.387	No

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

Table 19: LTE Band 17 (10MHz, Main-antenna)

Test Position	Cover Type	Sensor	Distance	Duty Cycle	RB allocation	RB offset	Channel/Frequency (MHz)	Tune-up (dBm)	Measured power (dBm)	Limit of SAR 1.6 W/kg (mW/g)				Plot No.
										Measured SAR1g	Power Drift (dB)	Scaling Factor	Report SAR1g	
Head SAR (QPSK)														
Left Cheek	standard	off	0mm	1:1	1	25	23790/710	25.00	24.03	0.096	0.070	1.25	0.120	/
Left Tilt	standard	off	0mm	1:1	1	25	23790/710	25.00	24.03	0.047	0.060	1.25	0.058	/
Right Cheek	standard	off	0mm	1:1	1	25	23790/710	25.00	24.03	0.116	0.062	1.25	0.145	67
Right Tilt	standard	off	0mm	1:1	1	25	23790/710	25.00	24.03	0.052	0.038	1.25	0.065	/
Left Cheek	standard	off	0mm	1:1	50%	13	23790/710	24.00	22.90	0.075	0.067	1.29	0.096	/
Left Tilt	standard	off	0mm	1:1	50%	13	23790/710	24.00	22.90	0.037	0.028	1.29	0.048	/
Right Cheek	standard	off	0mm	1:1	50%	13	23790/710	24.00	22.90	0.088	0.033	1.29	0.114	/
Right Tilt	standard	off	0mm	1:1	50%	13	23790/710	24.00	22.90	0.039	0.040	1.29	0.050	/
Right Cheek	Battery2	off	0mm	1:1	1	25	23790/710	25.00	24.03	0.093	0.016	1.25	0.116	/
Body-worn SAR (QPSK)														
Back Side	standard	off	15mm	1:1	1	49	23790/710	25.00	24.03	0.168	0.010	1.25	0.210	68
Front Side	standard	off	15mm	1:1	1	25	23790/710	25.00	24.03	0.132	0.050	1.25	0.165	/
Back Side	standard	off	15mm	1:1	50%	13	23790/710	24.00	22.90	0.153	0.190	1.29	0.197	/
Front Side	standard	off	15mm	1:1	50%	13	23790/710	24.00	22.90	0.122	-0.040	1.29	0.157	/
Back Side	Battery2	off	15mm	1:1	1	25	23790/710	25.00	24.03	0.158	-0.045	1.25	0.198	/
Hotspot SAR(QPSK)														
Back Side	standard	off	10mm	1:1	1	49	23780/709	24.50	23.32	0.234	-0.030	1.31	0.307	69
Front Side	standard	off	10mm	1:1	1	49	23780/709	24.50	23.32	0.186	0.050	1.31	0.244	/
Left Edge	standard	off	10mm	1:1	1	49	23780/709	24.50	23.32	0.101	0.087	1.31	0.133	/
Right Edge	standard	off	10mm	1:1	1	49	23780/709	24.50	23.32	0.091	0.031	1.31	0.119	/
Top Edge	N/A	N/A	N/A	1:1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Bottom Edge	standard	off	10mm	1:1	1	49	23780/709	24.50	23.32	0.080	0.080	1.31	0.105	/
Back Side	standard	off	10mm	1:1	50%	25	23800/711	24.00	22.76	0.220	-0.030	1.33	0.293	/
Front Side	standard	off	10mm	1:1	50%	25	23800/711	24.00	22.76	0.171	0.040	1.33	0.228	/
Left Edge	standard	off	10mm	1:1	50%	25	23800/711	24.00	22.76	0.087	0.030	1.33	0.116	/
Right Edge	standard	off	10mm	1:1	50%	25	23800/711	24.00	22.76	0.092	0.045	1.33	0.122	/
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
Bottom Edge	standard	off	10mm	1:1	50%	25	23800/711	24.00	22.76	0.075	-0.010	1.33	0.100	/
Back Side	Battery2	off	10mm	1:1	1	49	23780/709	24.50	23.32	0.211	-0.031	1.31	0.277	/
Note: 1. The value with blue color is the maximum SAR Value of each test band. 2. For QPSK with 100% RB allocation, SAR is required when and the highest reported SAR for 1 RB and 50% RB allocation in are $\geq 50\%$ limit(10g).														

MAX Adjusted SAR

Test Position	Cover Type	Sensor	Distance	Duty Cycle	RB allocation	RB offset	Channel/Frequency (MHz)	Full power (dBm)	Tune-up dBm	Report SAR1g (mW/g)	Scaling Factor	Full power Report SAR1g (mW/g)	0mm SAR
Back Side	standard	off	10mm	1:1	1	49	23780/709	25.00	24.50	0.307	1.12	0.344	No
Front Side	standard	off	10mm	1:1	1	49	23780/709	25.00	24.50	0.244	1.12	0.274	No
Left Edge	standard	off	10mm	1:1	1	49	23780/709	25.00	24.50	0.133	1.12	0.149	No
Right Edge	standard	off	10mm	1:1	1	49	23780/709	25.00	24.50	0.119	1.12	0.134	No
Top Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	25.00	N/A	N/A	N/A	N/A	N/A
Bottom Edge	standard	off	10mm	1:1	1	49	23780/709	25.00	24.50	0.105	1.12	0.118	No
Back Side	standard	off	10mm	1:1	50%	25	23800/711	24.50	24.00	0.293	1.12	0.329	No
Front Side	standard	off	10mm	1:1	50%	25	23800/711	24.50	24.00	0.228	1.12	0.256	No
Left Edge	standard	off	10mm	1:1	50%	25	23800/711	24.50	24.00	0.116	1.12	0.130	No
Right Edge	standard	off	10mm	1:1	50%	25	23800/711	24.50	24.00	0.122	1.12	0.137	No
Top Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	24.50	N/A	N/A	N/A	N/A	N/A
Bottom Edge	standard	off	10mm	1:1	50%	25	23800/711	24.50	24.00	0.100	1.12	0.112	No
Back Side	Battery2	off	10mm	1:1	1	49	23780/709	25.00	24.50	0.277	1.12	0.311	No

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

Table 20: LTE Band 26 (15MHz, Main-antenna)

Test Position	Cover Type	Sensor	Distance	Duty Cycle	RB allocation	RB offset	Channel/Frequency (MHz)	Tune-up (dBm)	Measured power (dBm)	Limit of SAR 1.6 W/kg (mW/g)				Plot No.
										Measured SAR1g	Power Drift (dB)	Scaling Factor	Report SAR1g	
Head SAR (QPSK)														
Left Cheek	standard	off	0mm	1:1	1	38	26865/831.5	25.00	23.72	0.080	0.105	1.34	0.108	/
Left Tilt	standard	off	0mm	1:1	1	38	26865/831.5	25.00	23.72	0.042	0.035	1.34	0.056	/
Right Cheek	standard	off	0mm	1:1	1	38	26865/831.5	25.00	23.72	0.120	0.043	1.34	0.161	70
Right Tilt	standard	off	0mm	1:1	1	38	26865/831.5	25.00	23.72	0.044	0.031	1.34	0.059	/
Left Cheek	standard	off	0mm	1:1	50%	0	26965/841.5	24.00	22.80	0.064	0.106	1.32	0.084	/
Left Tilt	standard	off	0mm	1:1	50%	0	26965/841.5	24.00	22.80	0.035	0.029	1.32	0.046	/
Right Cheek	standard	off	0mm	1:1	50%	0	26965/841.5	24.00	22.80	0.091	0.089	1.32	0.119	/
Right Tilt	standard	off	0mm	1:1	50%	0	26965/841.5	24.00	22.80	0.032	0.034	1.32	0.042	/
Right Cheek	Battery2	off	0mm	1:1	1	38	26865/831.5	25.00	23.72	0.103	-0.060	1.34	0.138	/
Body-worn SAR (QPSK)														
Back Side	standard	off	15mm	1:1	1	38	26865/831.5	25.00	23.72	0.191	0.120	1.34	0.256	/
Front Side	standard	off	15mm	1:1	1	38	26865/831.5	25.00	23.72	0.144	0.050	1.34	0.193	/
Back Side	standard	off	15mm	1:1	50%	0	26965/841.5	24.00	22.80	0.193	0.050	1.32	0.254	71
Front Side	standard	off	15mm	1:1	50%	0	26965/841.5	24.00	22.80	0.143	0.050	1.32	0.189	/
Back Side	Battery2	off	15mm	1:1	1	38	26865/831.5	25.00	23.72	0.136	0.030	1.34	0.183	/
Hotspot SAR(QPSK)														
Back Side	standard	off	10mm	1:1	1	38	26765/821.5	24.00	22.75	0.294	0.070	1.33	0.392	/
Front Side	standard	off	10mm	1:1	1	38	26765/821.5	24.00	22.75	0.203	0.146	1.33	0.271	/
Left Edge	standard	off	10mm	1:1	1	38	26765/821.5	24.00	22.75	0.089	0.120	1.33	0.119	/
Right Edge	standard	off	10mm	1:1	1	38	26765/821.5	24.00	22.75	0.078	0.098	1.33	0.104	/
Top Edge	N/A	N/A	N/A	1:1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Bottom Edge	standard	off	10mm	1:1	1	38	26765/821.5	24.00	22.75	0.159	0.000	1.33	0.212	/
Back Side	standard	off	10mm	1:1	50%	18	26865/831.5	24.00	22.81	0.315	0.150	1.32	0.414	72
Front Side	standard	off	10mm	1:1	50%	18	26865/831.5	24.00	22.81	0.210	0.030	1.32	0.276	/
Left Edge	standard	off	10mm	1:1	50%	18	26865/831.5	24.00	22.81	0.078	0.061	1.32	0.103	/
Right Edge	standard	off	10mm	1:1	50%	18	26865/831.5	24.00	22.81	0.067	0.110	1.32	0.088	/
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
Bottom Edge	standard	off	10mm	1:1	50%	18	26865/831.5	24.00	22.81	0.155	-0.120	1.32	0.204	/
Back Side	Battery2	off	10mm	1:1	50%	18	26865/831.5	24.00	22.81	0.273	0.035	1.32	0.359	/
<p>Note: 1. The value with blue color is the maximum SAR Value of each test band.</p> <p>2. For QPSK with 100% RB allocation, SAR is required when and the highest reported SAR for 1 RB and 50% RB allocation in are $\geq 50\%$ limit(10g).</p>														

MAX Adjusted SAR

Test Position	Cover Type	Sensor	Distance	Duty Cycle	RB allocation	RB offset	Channel/Frequency (MHz)	Full power (dBm)	Tune-up dBm	Report SAR1g (mW/g)	Scaling Factor	Full power Report SAR1g (mW/g)	0mm SAR
Back Side	standard	off	10mm	1:1	1	38	26765/821.5	25.00	24.00	0.392	1.26	0.493	No
Front Side	standard	off	10mm	1:1	1	38	26765/821.5	25.00	24.00	0.271	1.26	0.341	No
Left Edge	standard	off	10mm	1:1	1	38	26765/821.5	25.00	24.00	0.119	1.26	0.150	No
Right Edge	standard	off	10mm	1:1	1	38	26765/821.5	25.00	24.00	0.104	1.26	0.131	No
Top Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	25.00	N/A	N/A	N/A	N/A	N/A
Bottom Edge	standard	off	10mm	1:1	1	38	26765/821.5	25.00	24.00	0.212	1.26	0.267	No
Back Side	standard	off	10mm	1:1	50%	18	26865/831.5	25.00	24.00	0.414	1.26	0.521	No
Front Side	standard	off	10mm	1:1	50%	18	26865/831.5	25.00	24.00	0.276	1.26	0.347	No
Left Edge	standard	off	10mm	1:1	50%	18	26865/831.5	25.00	24.00	0.103	1.26	0.130	No
Right Edge	standard	off	10mm	1:1	50%	18	26865/831.5	25.00	24.00	0.088	1.26	0.111	No
Top Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	25.00	N/A	N/A	N/A	N/A	N/A
Bottom Edge	standard	off	10mm	1:1	50%	18	26865/831.5	25.00	24.00	0.204	1.26	0.257	No
Back Side	Battery2	off	10mm	1:1	1	18	26865/831.5	25.00	24.00	0.359	1.26	0.452	No

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

Table 21: LTE Band 38 (20MHz, Main-antenna)

Test Position	Cover Type	Sensor	Distance	Duty Cycle	RB allocation	RB offset	Channel/Frequency (MHz)	Tune-up (dBm)	Measured power (dBm)	Limit of SAR 1.6 W/kg (mW/g)				Plot No.
										Measured SAR1g	Power Drift (dB)	Scaling Factor	Report SAR1g	
Head SAR (QPSK)														
Left Cheek	standard	off	0mm	1:1.58	1	99	37850/2580	23.63	23.10	0.045	0.020	1.13	0.051	/
Left Tilt	standard	off	0mm	1:1.58	1	99	37850/2580	23.63	23.10	0.039	0.090	1.13	0.043	/
Right Cheek	standard	off	0mm	1:1.58	1	99	37850/2580	23.63	23.10	0.065	0.186	1.13	0.073	73
Right Tilt	standard	off	0mm	1:1.58	1	99	37850/2580	23.63	23.10	0.020	0.089	1.13	0.022	/
Left Cheek	standard	off	0mm	1:1.58	50%	0	38150/2610	22.63	21.88	0.027	0.073	1.19	0.033	/
Left Tilt	standard	off	0mm	1:1.58	50%	0	38150/2610	22.63	21.88	0.027	-0.040	1.19	0.032	/
Right Cheek	standard	off	0mm	1:1.58	50%	0	38150/2610	22.63	21.88	0.050	0.198	1.19	0.060	/
Right Tilt	standard	off	0mm	1:1.58	50%	0	38150/2610	22.63	21.88	0.014	0.033	1.19	0.017	/
Right Cheek	standard	off	0mm	1:1.58	1	99	37850/2580(PCC)	23.63	22.88	0.051	0.076	1.19	0.061	/
					1	0	38048/2599.8(SCC)							
Right Cheek	Battery2	off	0mm	1:1.58	1	99	37850/2580	23.63	23.10	0.046	0.102	1.13	0.052	//
Body-worn SAR (QPSK)														
Back Side	standard	off	15mm	1:1.58	1	99	37850/2580	23.63	23.10	0.218	0.096	1.13	0.246	74
Front Side	standard	off	15mm	1:1.58	1	99	37850/2580	23.63	23.10	0.118	0.109	1.13	0.190	/
Back Side	standard	off	15mm	1:1.58	50%	0	38150/2610	22.63	21.88	0.110	0.136	1.19	0.185	/
Front Side	standard	off	15mm	1:1.58	50%	0	38150/2610	22.63	21.88	0.087	0.026	1.19	0.127	/
Back Side	standard	off	15mm	1:1.58	1	99	37850/2580(PCC)	23.63	22.99	0.146	0.043	1.16	0.169	/
					1	0	38048/2599.8(SCC)							
Back Side	Battery2	off	15mm	1:1.58	1	50	38150/2610	21.63	20.85	0.131	0.022	1.20	0.157	/
Hotspot SAR(QPSK)														
Back Side	standard	off	10mm	1:1.58	1	50	38150/2610	21.63	20.85	0.189	0.068	1.20	0.226	/
Front Side	standard	off	10mm	1:1.58	1	50	38150/2610	21.63	20.85	0.150	0.087	1.20	0.180	/
Left Edge	standard	off	10mm	1:1.58	1	50	38150/2610	21.63	20.85	0.057	0.098	1.20	0.068	/
Right Edge	standard	off	10mm	1:1.58	1	50	38150/2610	21.63	20.85	0.051	0.032	1.20	0.061	/
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
Bottom Edge	standard	off	10mm	1:1.58	1	50	38150/2610	21.63	20.85	0.224	0.070	1.20	0.268	75
Back Side	standard	off	10mm	1:1.58	50%	50	37850/2580	21.63	20.82	0.190	0.091	1.21	0.229	/
Front Side	standard	off	10mm	1:1.58	50%	50	37850/2580	21.63	20.82	0.147	0.089	1.21	0.177	/
Left Edge	standard	off	10mm	1:1.58	50%	50	37850/2580	21.63	20.82	0.071	0.066	1.21	0.086	/
Right Edge	standard	off	10mm	1:1.58	50%	50	37850/2580	21.63	20.82	0.072	0.081	1.21	0.087	/
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

Bottom Edge	standard	off	10mm	1:1.58	50%	50	37850/2580	21.63	20.82	0.218	0.053	1.21	0.263	/
Bottom Edge	standard	off	10mm	1:1.58	1	99	37850/2580(PCC)	21.63	19.67	0.143	0.054	1.57	0.225	/
					1	0	38048/2599.8(SCC)							
Bottom Edge	Battery2	off	10mm	1:1.58	1	50	38150/2610	21.63	20.85	0.168	-0.056	1.20	0.201	/

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

2. For QPSK with 100% RB allocation, SAR is required when and the highest reported SAR for 1 RB and 50% RB allocation in are \geq 50% limit(10g).

MAX Adjusted SAR													
Test Position	Cover Type	Sensor	Distance	Duty Cycle	RB allocation	RB offset	Channel/Frequency (MHz)	Full power (dBm)	Tune-up dBm)	Report SAR1g (mW/g)	Scaling Factor	Full power Report SAR1g (mW/g)	0mm SAR
Back Side	standard	off	10mm	1:1.58	1	50	38150/2610	23.63	21.63	0.226	1.58	0.358	No
Front Side	standard	off	10mm	1:1.58	1	50	38150/2610	23.63	21.63	0.180	1.58	0.285	No
Left Edge	standard	off	10mm	1:1.58	1	50	38150/2610	23.63	21.63	0.068	1.58	0.108	No
Right Edge	standard	off	10mm	1:1.58	1	50	38150/2610	23.63	21.63	0.061	1.58	0.097	No
Top Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	23.63	N/A	N/A	N/A	N/A	N/A
Bottom Edge	standard	off	10mm	1:1.58	1	50	38150/2610	23.63	21.63	0.268	1.58	0.425	No
Back Side	standard	off	10mm	1:1.58	50%	50	37850/2580	23.63	21.63	0.229	1.58	0.363	No
Front Side	standard	off	10mm	1:1.58	50%	50	37850/2580	23.63	21.63	0.177	1.58	0.281	No
Left Edge	standard	off	10mm	1:1.58	50%	50	37850/2580	23.63	21.63	0.086	1.58	0.136	No
Right Edge	standard	off	10mm	1:1.58	50%	50	37850/2580	23.63	21.63	0.087	1.58	0.138	No
Top Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	23.63	N/A	N/A	N/A	N/A	N/A
Bottom Edge	standard	off	10mm	1:1.58	50%	50	37850/2580	23.63	21.63	0.263	1.58	0.417	No
Bottom Edge	standard	off	10mm	1:1.58	1	99	37850/2580(PCC)	23.63	21.63	0.225	1.58	0.357	No
					1	0	38048/2599.8(SCC)						
Bottom Edge	Battery2	off	10mm	1:1.58	1	50	38150/2610	23.63	21.63	0.201	1.58	0.319	No

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

Table 22: LTE Band 41 (20MHz, Main-antenna)

Test Position	Cover Type	Sensor	Distance	Duty Cycle	RB allocation	RB offset	Channel/Frequency (MHz)	Tune-up (dBm)	Measured power (dBm)	Limit of SAR 1.6 W/kg (mW/g)				Plot No.
										Measured SAR1g	Power Drift (dB)	Scaling Factor	Report SAR1g	
Head SAR (QPSK)														
Left Cheek	standard	off	0mm	1:1.58	1	0	40620/2593	23.63	23.17	0.037	0.134	1.11	0.041	/
Left Tilt	standard	off	0mm	1:1.58	1	0	40620/2593	23.63	23.17	0.012	-0.034	1.11	0.013	/
Right Cheek	standard	off	0mm	1:1.58	1	0	40620/2593	23.63	23.17	0.067	0.024	1.11	0.075	76
Right Tilt	standard	off	0mm	1:1.58	1	0	40620/2593	23.63	23.17	0.023	0.072	1.11	0.026	/
Left Cheek	standard	off	0mm	1:1.58	50%	50	40185/2549.5	22.63	22.06	0.028	0.144	1.14	0.032	/
Left Tilt	standard	off	0mm	1:1.58	50%	50	40185/2549.5	22.63	22.06	0.035	0.041	1.14	0.039	/
Right Cheek	standard	off	0mm	1:1.58	50%	50	40185/2549.5	22.63	22.06	0.054	0.030	1.14	0.062	/
Right Tilt	standard	off	0mm	1:1.58	50%	50	40185/2549.5	22.63	22.06	0.019	0.021	1.14	0.021	/
Right Cheek	standard	off	0mm	1:1.58	1	99	40140/2545(PCC)	22.63	21.57	0.056	0.042	1.28	0.071	/
					1	0	40338/2564.8(SCC)							
Right Cheek	Battery2	off	0mm	1:1.58	1	0	40620/2593	23.63	23.17	0.053	0.028	1.11	0.059	/
Body-worn SAR (QPSK)														
Back Side	standard	off	15mm	1:1.58	1	0	40620/2593	23.63	23.17	0.156	0.084	1.11	0.173	77
Front Side	standard	off	15mm	1:1.58	1	0	40620/2593	23.63	23.17	0.113	0.024	1.11	0.126	/
Back Side	standard	off	15mm	1:1.58	50%	50	40185/2549.5	22.63	22.06	0.117	0.034	1.14	0.133	/
Front Side	standard	off	15mm	1:1.58	50%	50	40185/2549.5	22.63	22.06	0.089	0.126	1.14	0.101	/
Back Side	standard	off	15mm	1:1.58	1	99	40140/2545(PCC)	22.63	21.57	0.139	0.032	1.28	0.177	/
					1	0	40338/2564.8(SCC)							
Back Side	Battery2	off	15mm	1:1.58	1	0	40620/2593	23.63	23.17	0.155	0.013	1.11	0.172	/
Hotspot SAR(QPSK)														
Back Side	standard	off	10mm	1:1.58	1	99	41055/2636.5	22.13	21.28	0.214	0.107	1.22	0.260	/
Front Side	standard	off	10mm	1:1.58	1	99	41055/2636.5	22.13	21.28	0.165	0.135	1.22	0.201	/
Left Edge	standard	off	10mm	1:1.58	1	99	41055/2636.5	22.13	21.28	0.078	0.180	1.22	0.095	/
Right Edge	standard	off	10mm	1:1.58	1	99	41055/2636.5	22.13	21.28	0.081	0.170	1.22	0.099	/
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
Bottom Edge	standard	off	10mm	1:1.58	1	99	41055/2636.5	22.13	21.28	0.355	0.160	1.22	0.432	78
Back Side	standard	off	10mm	1:1.58	50%	50	40185/2549.5	22.13	21.27	0.204	-0.140	1.22	0.249	/
Front Side	standard	off	10mm	1:1.58	50%	50	40185/2549.5	22.13	21.27	0.156	0.087	1.22	0.190	/
Left Edge	standard	off	10mm	1:1.58	50%	50	40185/2549.5	22.13	21.27	0.067	0.090	1.22	0.082	/
Right Edge	standard	off	10mm	1:1.58	50%	50	40185/2549.5	22.13	21.27	0.071	0.080	1.22	0.087	/
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

Bottom Edge	standard	off	10mm	1:1.58	50%	50	40185/2549.5	22.13	21.27	0.321	0.140	1.22	0.391	/
Bottom Edge	standard	off	10mm	1:1.58	1	99	40140/2545(PCC)	21.13	20.20	0.267	0.060	1.24	0.331	/
					1	0	40338/2564.8(SCC)							
Bottom Edge	Battery2	off	10mm	1:1.58	1	99	41055/2636.5	22.13	21.28	0.310	-0.046	1.22	0.377	/

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

2. For QPSK with 100% RB allocation, SAR is required when and the highest reported SAR for 1 RB and 50% RB allocation in are \geq 50% limit(10g).

MAX Adjusted SAR													
Test Position	Cover Type	Sensor	Distance	Duty Cycle	RB allocation	RB offset	Channel/Frequency (MHz)	Full power (dBm)	Tune-up dBm)	Report SAR1g (mW/g)	Scaling Factor	Full power Report SAR1g (mW/g)	0mm SAR
Back Side	standard	off	10mm	1:1.58	1	99	41055/2636.5	23.63	22.13	0.260	1.41	0.367	No
Front Side	standard	off	10mm	1:1.58	1	99	41055/2636.5	23.63	22.13	0.201	1.41	0.284	No
Left Edge	standard	off	10mm	1:1.58	1	99	41055/2636.5	23.63	22.13	0.095	1.41	0.134	No
Right Edge	standard	off	10mm	1:1.58	1	99	41055/2636.5	23.63	22.13	0.099	1.41	0.140	No
Top Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	23.63	N/A	N/A	N/A	N/A	N/A
Bottom Edge	standard	off	10mm	1:1.58	1	99	41055/2636.5	23.63	22.13	0.432	1.41	0.610	No
Back Side	standard	off	10mm	1:1.58	50%	50	40185/2549.5	23.63	22.13	0.249	1.41	0.352	No
Front Side	standard	off	10mm	1:1.58	50%	50	40185/2549.5	23.63	22.13	0.190	1.41	0.268	No
Left Edge	standard	off	10mm	1:1.58	50%	50	40185/2549.5	23.63	22.13	0.082	1.41	0.116	No
Right Edge	standard	off	10mm	1:1.58	50%	50	40185/2549.5	23.63	22.13	0.087	1.41	0.123	No
Top Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	23.63	N/A	N/A	N/A	N/A	N/A
Bottom Edge	standard	off	10mm	1:1.58	50%	50	40185/2549.5	23.63	22.13	0.391	1.41	0.552	No
Bottom Edge	standard	off	10mm	1:1.58	1	99	40140/2545(PCC)	23.63	21.13	0.331	1.78	0.589	No
					1	0	40338/2564.8(SCC)						
Bottom Edge	Battery2	off	10mm	1:1.58	1	99	41055/2636.5	23.63	22.13	0.377	1.41	0.533	No

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

Table 23: LTE Band 66 (20MHz, Main-antenna)

Test Position	Cover Type	Sensor	Distance	Duty Cycle	RB allocation	RB offset	Channel/Frequency (MHz)	Tune-up (dBm)	Measured power (dBm)	Limit of SAR 1.6 W/kg (mW/g)				Plot No.
										Measured SAR1g	Power Drift (dB)	Scaling Factor	Report SAR1g	
Head SAR (QPSK)														
Left Cheek	standard	off	0mm	1:1.58	1	99	132322/1745	23.00	22.22	0.103	-0.110	1.20	0.123	/
Left Tilt	standard	off	0mm	1:1.58	1	99	132322/1745	23.00	22.22	0.067	-0.090	1.20	0.080	/
Right Cheek	standard	off	0mm	1:1.58	1	99	132322/1745	23.00	22.22	0.126	-0.170	1.20	0.151	79
Right Tilt	standard	off	0mm	1:1.58	1	99	132322/1745	23.00	22.22	0.052	0.100	1.20	0.063	/
Left Cheek	standard	off	0mm	1:1.58	50%	0	132322/1745	22.00	21.15	0.097	0.098	1.22	0.118	/
Left Tilt	standard	off	0mm	1:1.58	50%	0	132322/1745	22.00	21.15	0.064	0.034	1.22	0.078	/
Right Cheek	standard	off	0mm	1:1.58	50%	0	132322/1745	22.00	21.15	0.119	0.070	1.22	0.145	/
Right Tilt	standard	off	0mm	1:1.58	50%	0	132322/1745	22.00	21.15	0.049	-0.060	1.22	0.060	/
Right Cheek	Battery2	off	0mm	1:1.58	1	99	132322/1745	23.00	22.22	0.115	0.022	1.20	0.138	/
Body-worn SAR (QPSK)														
Back Side	standard	off	15mm	1:1.58	1	99	132322/1745	23.00	22.22	0.186	0.150	1.20	0.223	/
Front Side	standard	off	15mm	1:1.58	1	99	132322/1745	23.00	22.22	0.193	0.000	1.20	0.231	80
Back Side	standard	off	15mm	1:1.58	50%	0	132322/1745	22.00	21.15	0.155	0.090	1.22	0.189	/
Front Side	standard	off	15mm	1:1.58	50%	0	132322/1745	22.00	21.15	0.157	0.000	1.22	0.191	/
Front Side	Battery2	off	15mm	1:1.58	1	99	132322/1745	23.00	22.22	0.172	0.010	1.20	0.206	/
Hotspot SAR(QPSK)														
Back Side	standard	off	10mm	1:1.58	1	0	132572/1770	20.50	19.73	0.176	0.110	1.19	0.210	/
Front Side	standard	off	10mm	1:1.58	1	0	132572/1770	20.50	19.73	0.165	0.080	1.19	0.197	/
Left Edge	standard	off	10mm	1:1.58	1	0	132572/1770	20.50	19.73	0.076	0.110	1.19	0.091	/
Right Edge	standard	off	10mm	1:1.58	1	0	132572/1770	20.50	19.73	0.064	0.090	1.19	0.076	/
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
Bottom Edge	standard	off	10mm	1:1.58	1	0	132572/1770	20.50	19.73	0.267	-0.010	1.19	0.319	/
Back Side	standard	off	10mm	1:1.58	50%	0	132322/1745	20.50	19.68	0.172	0.040	1.21	0.208	/
Front Side	standard	off	10mm	1:1.58	50%	0	132322/1745	20.50	19.68	0.155	0.000	1.21	0.187	/
Left Edge	standard	off	10mm	1:1.58	50%	0	132322/1745	20.50	19.68	0.081	0.098	1.21	0.098	/
Right Edge	standard	off	10mm	1:1.58	50%	0	132322/1745	20.50	19.68	0.079	0.019	1.21	0.095	/
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
Bottom Edge	standard	off	10mm	1:1.58	50%	0	132322/1745	20.50	19.68	0.318	-0.140	1.21	0.384	81
Bottom Edge	Battery2	off	10mm	1:1.58	50%	0	132322/1745	20.50	19.68	0.280	0.080	1.21	0.338	/

Note: 1. The value with blue color is the maximum SAR Value of each test band.
 2. For QPSK with 100% RB allocation, SAR is required when and the highest reported SAR for 1 RB and 50% RB allocation in are \geq 50% limit(10g).

MAX Adjusted SAR

Test Position	Cover Type	Sensor	Distance	Duty Cycle	RB allocation	RB offset	Channel/Frequency (MHz)	Full power (dBm)	Tune-up dBm	Report SAR1g (mW/g)	Scaling Factor	Full power Report SAR1g (mW/g)	0mm SAR
Back Side	standard	off	10mm	1:1	1	0	132572/1770	23.00	20.50	0.210	1.78	0.373	No
Front Side	standard	off	10mm	1:1	1	0	132572/1770	23.00	20.50	0.197	1.78	0.350	No
Left Edge	standard	off	10mm	1:1	1	0	132572/1770	23.00	20.50	0.091	1.78	0.162	No
Right Edge	standard	off	10mm	1:1	1	0	132572/1770	23.00	20.50	0.076	1.78	0.135	No
Top Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	23.00	N/A	N/A	N/A	N/A	N/A
Bottom Edge	standard	off	10mm	1:1	1	0	132572/1770	23.00	20.50	0.319	1.78	0.567	No
Back Side	standard	off	10mm	1:1	50%	0	132322/1745	23.00	20.50	0.208	1.78	0.370	No
Front Side	standard	off	10mm	1:1	50%	0	132322/1745	23.00	20.50	0.187	1.78	0.333	No
Left Edge	standard	off	10mm	1:1	50%	0	132322/1745	23.00	20.50	0.098	1.78	0.174	No
Right Edge	standard	off	10mm	1:1	50%	0	132322/1745	23.00	20.50	0.095	1.78	0.169	No
Top Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	23.00	N/A	N/A	N/A	N/A	N/A
Bottom Edge	standard	off	10mm	1:1	50%	0	132322/1745	23.00	20.50	0.384	1.78	0.683	No
Bottom Edge	Battery2	off	10mm	1:1	50%	0	132322/1745	23.00	20.50	0.338	1.78	0.601	No

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

Table 24: GSM 850 (Second-antenna)

Test Position	Cover Type	Time slot	Duty Cycle	Channel/Frequency (MHz)	Tune-up (dBm)	Measured power (dBm)	Limit of SAR 1.6 W/kg (mW/g)				Plot No.
							Measured SAR1g	Power Drift (dB)	Scaling Factor	Report SAR1g	
Head SAR											
Left Cheek	standard	GSM	1:8.3	190/836.6	28.30	27.12	0.407	0.104	1.31	0.534	82
Left Tilt	standard	GSM	1:8.3	190/836.6	28.30	27.12	0.357	0.090	1.31	0.468	/
Right Cheek	standard	GSM	1:8.3	190/836.6	28.30	27.12	0.351	0.040	1.31	0.461	/
Right Tilt	standard	GSM	1:8.3	190/836.6	28.30	27.12	0.376	-0.030	1.31	0.493	/
Left Cheek	Battery2	GSM	1:8.3	190/836.6	28.30	27.12	0.398	0.083	1.31	0.522	/
Body-worn SAR (Distance 15mm)											
Back Side	standard	GSM	1:8.3	190/836.6	33.30	32.09	0.123	-0.090	1.32	0.163	/
Front Side	standard	GSM	1:8.3	190/836.6	33.30	32.09	0.135	0.080	1.32	0.178	83
Front Side	Battery2	GSM	1:8.3	190/836.6	33.30	32.09	0.131	0.076	1.32	0.173	/
Hotspot SAR(Distance 10mm)											
Back Side	standard	2Txslots	1:4.15	190/836.6	31.30	29.74	0.269	-0.010	1.43	0.385	/
Front Side	standard	2Txslots	1:4.15	190/836.6	31.30	29.74	0.272	-0.050	1.43	0.390	84
Left Edge	standard	2Txslots	1:4.15	190/836.6	31.30	29.74	0.083	0.060	1.43	0.119	/
Right Edge	standard	2Txslots	1:4.15	190/836.6	31.30	29.74	0.015	0.026	1.43	0.021	/
Top Edge	standard	2Txslots	1:4.15	190/836.6	31.30	29.74	0.164	0.050	1.43	0.235	/
Bottom Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front Side	Battery2	2Txslots	1:4.15	190/836.6	31.30	29.74	0.266	-0.073	1.43	0.381	/
Note: 1.The value with blue color is the maximum SAR Value of each test band. 2.When multiple slots are used, SAR should be tested to account for the maximum source-based time-averaged output power.											

Table 25: GSM 1900(Second-antenna)

Test Position	Cover Type	Time slot	Duty Cycle	Channel/Frequency (MHz)	Tune-up (dBm)	Measured power (dBm)	Limit of SAR 1.6 W/kg (mW/g)				Plot No.
							Measured SAR1g	Power Drift (dB)	Scaling Factor	Report SAR1g	
Head SAR											
Left Cheek	standard	GSM	1:8.3	661/1880	27.30	26.03	0.167	0.164	1.34	0.224	/
Left Tilt	standard	GSM	1:8.3	661/1880	27.30	26.03	0.223	0.110	1.34	0.299	/
Right Cheek	standard	GSM	1:8.3	661/1880	27.30	26.03	0.241	-0.020	1.34	0.323	/
Right Tilt	standard	GSM	1:8.3	661/1880	27.30	26.03	0.367	0.170	1.34	0.492	85
Right Tilt	Battery2	GSM	1:8.3	661/1880	27.30	26.03	0.349	0.152	1.34	0.468	/
Body-worn SAR (Distance 15mm)											
Back Side	standard	GSM	1:8.3	661/1880	30.80	29.67	0.056	0.180	1.30	0.073	/
Front Side	standard	GSM	1:8.3	661/1880	30.80	29.67	0.061	0.120	1.30	0.078	86
Front Side	Battery2	GSM	1:8.3	661/1880	30.80	29.67	0.052	0.090	1.30	0.067	/
Hotspot SAR(Distance 10mm)											
Back Side	standard	2Txslots	1:4.15	661/1880	28.80	27.54	0.226	0.090	1.34	0.302	/
Front Side	standard	2Txslots	1:4.15	661/1880	28.80	27.54	0.244	-0.040	1.34	0.326	/
Left Edge	standard	2Txslots	1:4.15	661/1880	28.80	27.54	0.037	-0.020	1.34	0.050	/
Right Edge	standard	2Txslots	1:4.15	661/1880	28.80	27.54	0.042	-0.060	1.34	0.056	/
Top Edge	standard	2Txslots	1:4.15	661/1880	28.80	27.54	0.497	-0.021	1.34	0.664	87
Bottom Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Top Edge	Battery2	2Txslots	1:4.15	661/1880	28.80	27.54	0.452	-0.060	1.34	0.604	/
Note: 1. The value with blue color is the maximum SAR Value of each test band. 2. When multiple slots are used, SAR should be tested to account for the maximum source-based time-averaged output power.											

Table 26: UMTS Band II(Second-antenna)

Test Position	Cover Type	Channel Type	Duty Cycle	Channel/Frequency (MHz)	Tune-up (dBm)	Measured power (dBm)	Limit of SAR 1.6 W/kg (mW/g)				Plot No.
							Measured SAR1g	Power Drift (dB)	Scaling Factor	Report SAR1g	
Head SAR											
Left Cheek	standard	RMC 12.2K	1:1	9400/1880	18.00	17.02	0.334	-0.030	1.25	0.419	/
Left Tilt	standard	RMC 12.2K	1:1	9400/1880	18.00	17.02	0.565	0.000	1.25	0.708	88
Right Cheek	standard	RMC 12.2K	1:1	9400/1880	18.00	17.02	0.418	0.020	1.25	0.524	/
Right Tilt	standard	RMC 12.2K	1:1	9400/1880	18.00	17.02	0.495	0.040	1.25	0.620	/
Left Tilt	Battery2	RMC 12.2K	1:1	9400/1880	18.00	17.02	0.542	0.015	1.25	0.679	/
Body-worn SAR (Distance 15mm)											
Back Side	standard	RMC 12.2K	1:1	9400/1880	24.00	22.62	0.285	0.050	1.37	0.392	89
Front Side	standard	RMC 12.2K	1:1	9400/1880	24.00	22.62	0.280	-0.090	1.37	0.385	/
Back Side	Battery2	RMC 12.2K	1:1	9400/1880	24.00	22.62	0.279	0.047	1.37	0.383	/
Hotspot SAR(Distance 10mm)											
Back Side	standard	RMC 12.2K	1:1	9400/1880	24.00	22.62	0.250	0.076	1.37	0.344	/
Front Side	standard	RMC 12.2K	1:1	9400/1880	24.00	22.62	0.249	0.010	1.37	0.342	/
Left Edge	standard	RMC 12.2K	1:1	9400/1880	24.00	22.62	0.037	0.027	1.37	0.050	/
Right Edge	standard	RMC 12.2K	1:1	9400/1880	24.00	22.62	0.054	-0.080	1.37	0.075	/
Top Edge	standard	RMC 12.2K	1:1	9400/1880	24.00	22.62	0.538	-0.170	1.37	0.739	90
Bottom Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Top Edge	Battery2	RMC 12.2K	1:1	9400/1880	24.00	22.62	0.516	-0.023	1.37	0.709	/

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

2. When the maximum output power and tune-up tolerance specified for production units in a secondary mode is $\leq \frac{1}{4}$ dB higher than the primary mode or when the highest reported SAR of the primary mode is scaled by the ratio of specified maximum output power and tune-up tolerance of secondary to primary mode and the adjusted SAR is ≤ 1.2 W/kg, SAR measurement is not required for the secondary mode.

Table 27: UMTS Band IV(Second-antenna)

Test Position	Cover Type	Channel Type	Duty Cycle	Channel/Frequency (MHz)	Tune-up (dBm)	Measured power (dBm)	Limit of SAR 1.6 W/kg (mW/g)				Plot No.
							Measured SAR1g	Power Drift (dB)	Scaling Factor	Report SAR1g	
Head SAR											
Left Cheek	standard	RMC 12.2K	1:1	1413/1732.6	17.00	15.47	0.334	-0.030	1.42	0.475	/
Left Tilt	standard	RMC 12.2K	1:1	1413/1732.6	17.00	15.47	0.516	0.062	1.42	0.734	91
Right Cheek	standard	RMC 12.2K	1:1	1413/1732.6	17.00	15.47	0.374	0.040	1.42	0.532	/
Right Tilt	standard	RMC 12.2K	1:1	1413/1732.6	17.00	15.47	0.448	0.150	1.42	0.637	/
Left Tilt	Battery2	RMC 12.2K	1:1	1413/1732.6	17.00	15.47	0.498	0.103	1.42	0.708	/
Body-worn SAR (Distance 15mm)											
Back Side	standard	RMC 12.2K	1:1	1413/1732.6	24.00	22.40	0.211	-0.030	1.45	0.305	/
Front Side	standard	RMC 12.2K	1:1	1413/1732.6	24.00	22.40	0.248	0.070	1.45	0.358	92
Front Side	Battery2	RMC 12.2K	1:1	1413/1732.6	24.00	22.40	0.237	0.043	1.45	0.343	/
Hotspot SAR(Distance 10mm)											
Back Side	standard	RMC 12.2K	1:1	1413/1732.6	24.00	22.40	0.172	0.000	1.45	0.249	/
Front Side	standard	RMC 12.2K	1:1	1413/1732.6	24.00	22.40	0.190	0.060	1.45	0.275	/
Left Edge	standard	RMC 12.2K	1:1	1413/1732.6	24.00	22.40	0.042	0.090	1.45	0.060	/
Right Edge	standard	RMC 12.2K	1:1	1413/1732.6	24.00	22.40	0.023	0.027	1.45	0.033	/
Top Edge	standard	RMC 12.2K	1:1	1413/1732.6	24.00	22.40	0.363	-0.080	1.45	0.525	93
Bottom Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Top Edge	Battery2	RMC 12.2K	1:1	1413/1732.6	24.00	22.40	0.347	0.068	1.45	0.502	/

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

2. When the maximum output power and tune-up tolerance specified for production units in a secondary mode is $\leq \frac{1}{4}$ dB higher than the primary mode or when the highest reported SAR of the primary mode is scaled by the ratio of specified maximum output power and tune-up tolerance of secondary to primary mode and the adjusted SAR is ≤ 1.2 W/kg, SAR measurement is not required for the secondary mode.

Table 28: UMTS Band V(Second-antenna)

Test Position	Cover Type	Channel Type	Duty Cycle	Channel/Frequency (MHz)	Tune-up (dBm)	Measured power (dBm)	Limit of SAR 1.6 W/kg (mW/g)				Plot No.
							Measured SAR1g	Power Drift (dB)	Scaling Factor	Report SAR1g	
Head SAR											
Left Cheek	standard	RMC 12.2K	1:1	4183/836.6	19.00	17.57	0.298	0.080	1.39	0.414	/
Left Tilt	standard	RMC 12.2K	1:1	4183/836.6	19.00	17.57	0.297	0.045	1.39	0.413	/
Right Cheek	standard	RMC 12.2K	1:1	4183/836.6	19.00	17.57	0.334	0.030	1.39	0.464	/
Right Tilt	standard	RMC 12.2K	1:1	4183/836.6	19.00	17.57	0.378	-0.025	1.39	0.525	94
Right Tilt	Battery2	RMC 12.2K	1:1	4183/836.6	19.00	17.57	0.362	0.028	1.39	0.503	/
Body-worn SAR (Distance 15mm)											
Back Side	standard	RMC 12.2K	1:1	4183/836.6	25.00	23.54	0.189	-0.140	1.40	0.265	/
Front Side	standard	RMC 12.2K	1:1	4183/836.6	25.00	23.54	0.224	0.110	1.40	0.314	95
Front Side	Battery2	RMC 12.2K	1:1	4183/836.6	25.00	23.54	0.213	0.098	1.40	0.298	/
Hotspot SAR(Distance 10mm)											
Back Side	standard	RMC 12.2K	1:1	4183/836.6	25.00	23.54	0.107	-0.084	1.40	0.150	/
Front Side	standard	RMC 12.2K	1:1	4183/836.6	25.00	23.54	0.427	0.170	1.40	0.598	96
Left Edge	standard	RMC 12.2K	1:1	4183/836.6	25.00	23.54	0.036	0.110	1.40	0.050	/
Right Edge	standard	RMC 12.2K	1:1	4183/836.6	25.00	23.54	0.025	0.105	1.40	0.034	/
Top Edge	standard	RMC 12.2K	1:1	4183/836.6	25.00	23.54	0.060	0.035	1.40	0.084	/
Bottom Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front Side	Battery2	RMC 12.2K	1:1	4183/836.6	25.00	23.54	0.409	0.152	1.40	0.572	/

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

2. When the maximum output power and tune-up tolerance specified for production units in a secondary mode is $\leq \frac{1}{4}$ dB higher than the primary mode or when the highest reported SAR of the primary mode is scaled by the ratio of specified maximum output power and tune-up tolerance of secondary to primary mode and the adjusted SAR is ≤ 1.2 W/kg, SAR measurement is not required for the secondary mode.

Table 29: LTE Band 2 (20MHz, Second-antenna)

Test Position	Cover Type	Duty Cycle	RB allocation	RB offset	Channel/Frequency (MHz)	Tune-up (dBm)	Measured power (dBm)	Limit of SAR 1.6 W/kg (mW/g)				Plot No.
								Measured SAR1g	Power Drift (dB)	Scaling Factor	Report SAR1g	
Head SAR (QPSK)												
Left Cheek	standard	1:1	1	0	18900/1880	17.50	16.69	0.289	0.090	1.21	0.348	/
Left Tilt	standard	1:1	1	0	18900/1880	17.50	16.69	0.313	0.080	1.21	0.377	/
Right Cheek	standard	1:1	1	0	18900/1880	17.50	16.69	0.405	0.056	1.21	0.488	/
Right Tilt	standard	1:1	1	0	18900/1880	17.50	16.69	0.512	0.100	1.21	0.617	97
Left Cheek	standard	1:1	50%	0	19100/1900	17.50	16.53	0.231	0.110	1.25	0.289	/
Left Tilt	standard	1:1	50%	0	19100/1900	17.50	16.53	0.293	0.090	1.25	0.366	/
Right Cheek	standard	1:1	50%	0	19100/1900	17.50	16.53	0.375	0.020	1.25	0.469	/
Right Tilt	standard	1:1	50%	0	19100/1900	17.50	16.53	0.480	0.020	1.25	0.600	/
Right Tilt	Battery2	1:1	1	0	18900/1880	17.50	16.69	0.503	0.083	1.21	0.606	/
Body-worn SAR (QPSK, Distance 15mm)												
Back Side	standard	1:1	1	50	19100/1900	23.00	22.29	0.214	-0.010	1.18	0.252	98
Front Side	standard	1:1	1	50	19100/1900	23.00	22.29	0.199	-0.063	1.18	0.234	/
Back Side	standard	1:1	50%	0	18900/1880	22.00	21.17	0.169	0.040	1.21	0.205	/
Front Side	standard	1:1	50%	0	18900/1880	22.00	21.17	0.152	0.190	1.21	0.184	/
Back Side	Battery2	1:1	1	50	19100/1900	23.00	22.29	0.208	-0.021	1.18	0.245	/
Hotspot SAR(QPSK, Distance 10mm)												
Back Side	standard	1:1	1	50	19100/1900	23.00	22.29	0.203	0.190	1.18	0.239	/
Front Side	standard	1:1	1	50	19100/1900	23.00	22.29	0.212	0.030	1.18	0.250	/
Left Edge	standard	1:1	1	50	19100/1900	23.00	22.29	0.08	0.09	1.18	0.089	/
Right Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Top Edge	standard	1:1	100%	50	19100/1900	23.00	22.29	0.416	-0.020	1.18	0.490	/
Bottom Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Back Side	standard	1:1	50%	0	18900/1880	22.00	21.17	0.225	0.034	1.21	0.272	/
Front Side	standard	1:1	50%	0	18900/1880	22.00	21.17	0.208	0.034	1.21	0.252	/
Left Edge	standard	1:1	50%	0	18900/1880	22.00	21.17	0.069	0.12	1.21	0.084	/
Right Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Top Edge	standard	1:1	50%	0	18900/1880	22.00	21.17	0.433	0.024	1.21	0.524	99
Bottom Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Top Edge	Battery2	1:1	50%	0	18900/1880	22.00	21.17	0.426	0.030	1.21	0.516	/
<p>Note: 1.The value with blue color is the maximum SAR Value of each test band.</p> <p>2.For QPSK with 100% RB allocation, SAR is required when and the highest reported SAR for 1 RB and 50% RB allocation in are $\geq 50\%$ limit(10g).</p>												

Table 30: LTE Band 4 (20MHz, Second-antenna)

Test Position	Cover Type	Duty Cycle	RB allocation	RB offset	Channel/Frequency (MHz)	Tune-up (dBm)	Measured power (dBm)	Limit of SAR 1.6 W/kg (mW/g)				Plot No.
								Measured SAR1g	Power Drift (dB)	Scaling Factor	Report SAR1g	
Head SAR (QPSK)												
Left Cheek	standard	1:1	1	0	20300/1745	16.30	15.69	0.294	0.078	1.15	0.338	/
Left Tilt	standard	1:1	1	0	20300/1745	16.30	15.69	0.313	0.013	1.15	0.360	/
Right Cheek	standard	1:1	1	0	20300/1745	16.30	15.69	0.373	0.010	1.15	0.429	/
Right Tilt	standard	1:1	1	0	20300/1745	16.30	15.69	0.444	-0.020	1.15	0.511	/
Left Cheek	standard	1:1	50%	0	20300/1745	16.30	15.43	0.267	0.090	1.22	0.326	/
Left Tilt	standard	1:1	50%	0	20300/1745	16.30	15.43	0.307	0.034	1.22	0.375	/
Right Cheek	standard	1:1	50%	0	20300/1745	16.30	15.43	0.376	0.060	1.22	0.459	/
Right Tilt	standard	1:1	50%	0	20300/1745	16.30	15.43	0.449	0.037	1.22	0.549	100
Right Tilt	Battery2	1:1	50%	0	20300/1745	16.30	15.43	0.433	0.043	1.22	0.529	/
Body-worn SAR (QPSK, Distance 15mm)												
Back Side	standard	1:1	1	0	20050/1720	22.80	22.03	0.148	0.120	1.19	0.177	/
Front Side	standard	1:1	1	0	20050/1720	22.80	22.03	0.167	0.024	1.19	0.199	101
Back Side	standard	1:1	50%	0	20050/1720	21.80	21.01	0.113	0.060	1.20	0.136	/
Front Side	standard	1:1	50%	0	20050/1720	21.80	21.01	0.128	0.020	1.20	0.154	/
Front Side	Battery2	1:1	1	0	20050/1720	22.80	22.03	0.158	0.029	1.19	0.189	/
Hotspot SAR(QPSK, Distance 10mm)												
Back Side	standard	1:1	1	0	20050/1720	22.80	22.03	0.125	0.110	1.19	0.149	/
Front Side	standard	1:1	1	0	20050/1720	22.80	22.03	0.151	0.020	1.19	0.180	/
Left Edge	standard	1:1	1	0	20050/1720	22.80	22.03	0.059	0.090	1.19	0.070	/
Right Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Top Edge	standard	1:1	1	0	20050/1720	22.80	22.03	0.241	0.035	1.19	0.288	102
Bottom Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Back Side	standard	1:1	50%	0	20050/1720	21.80	21.01	0.129	0.029	1.20	0.155	/
Front Side	standard	1:1	50%	0	20050/1720	21.80	21.01	0.156	0.031	1.20	0.187	/
Left Edge	standard	1:1	50%	0	20050/1720	21.80	21.01	0.057	0.021	1.20	0.068	/
Right Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Top Edge	standard	1:1	50%	0	20050/1720	21.80	21.01	0.240	0.031	1.20	0.288	/
Bottom Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Top Edge	Battery2	1:1	100%	0	20050/1720	22.80	22.03	0.236	0.031	1.19	0.282	/
Note: 1.The value with blue color is the maximum SAR Value of each test band. 2.For QPSK with 100% RB allocation, SAR is required when and the highest reported SAR for 1 RB and 50% RB allocation in are $\geq 50\%$ limit(10g).												

Table 31: LTE Band 5 (10MHz, Second-antenna)

Test Position	Cover Type	Duty Cycle	RB allocation	RB offset	Channel/Frequency (MHz)	Tune-up (dBm)	Measured power (dBm)	Limit of SAR 1.6 W/kg (mW/g)				Plot No.
								Measured SAR1g	Power Drift (dB)	Scaling Factor	Report SAR1g	
Head SAR (QPSK)												
Left Cheek	standard	1:1	1	25	20450/829	19.00	18.21	0.282	0.090	1.20	0.338	/
Left Tilt	standard	1:1	1	25	20450/829	19.00	18.21	0.248	-0.035	1.20	0.297	/
Right Cheek	standard	1:1	1	25	20450/829	19.00	18.21	0.296	0.100	1.20	0.355	/
Right Tilt	standard	1:1	1	25	20450/829	19.00	18.21	0.266	0.040	1.20	0.319	/
Left Cheek	standard	1:1	50%	0	20450/829	19.00	18.16	0.312	0.038	1.21	0.379	103
Left Tilt	standard	1:1	50%	0	20450/829	19.00	18.16	0.267	0.060	1.21	0.324	/
Right Cheek	standard	1:1	50%	0	20450/829	19.00	18.16	0.308	0.030	1.21	0.374	/
Right Tilt	standard	1:1	50%	0	20450/829	19.00	18.16	0.278	0.170	1.21	0.337	/
Left Cheek	Battery2	1:1	50%	0	20450/829	19.00	18.16	0.310	0.032	1.21	0.376	/
Body-worn SAR (QPSK, Distance 15mm)												
Back Side	standard	1:1	1	0	20600/844	25.00	24.39	0.175	-0.020	1.15	0.201	104
Front Side	standard	1:1	1	0	20600/844	25.00	24.39	0.114	-0.030	1.15	0.131	/
Back Side	standard	1:1	50%	0	20600/844	24.00	23.36	0.137	-0.030	1.16	0.159	/
Front Side	standard	1:1	50%	0	20600/844	24.00	23.36	0.144	-0.010	1.16	0.167	/
Back Side	Battery2	1:1	1	0	20600/844	25.00	24.39	0.167	-0.025	1.15	0.192	/
Hotspot SAR(QPSK, Distance 10mm)												
Back Side	standard	1:1	1	0	20600/844	25.00	24.39	0.268	-0.010	1.15	0.308	/
Front Side	standard	1:1	1	0	20600/844	25.00	24.39	0.299	0.170	1.15	0.344	/
Left Edge	standard	1:1	1	0	20600/844	25.00	24.39	0.069	0.120	1.15	0.079	/
Right Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Top Edge	standard	1:1	1	0	20600/844	25.00	24.39	0.181	0.130	1.15	0.208	/
Bottom Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Back Side	standard	1:1	50%	0	20600/844	24.00	23.36	0.258	0.190	1.16	0.299	/
Front Side	standard	1:1	50%	0	20600/844	24.00	23.36	0.306	0.120	1.16	0.355	105
Left Edge	standard	1:1	50%	0	20600/844	24.00	23.36	0.057	0.110	1.16	0.066	/
Right Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Top Edge	standard	1:1	50%	0	20600/844	24.00	23.36	0.175	0.053	1.16	0.203	/
Bottom Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front Side	Battery2	1:1	50%	0	20600/844	24.00	23.36	0.300	0.021	1.16	0.348	/
Note: 1.The value with blue color is the maximum SAR Value of each test band. 2.For QPSK with 100% RB allocation, SAR is required when and the highest reported SAR for 1 RB and 50% RB allocation in are $\geq 50\%$ limit(10g).												

Table 32: LTE Band 7 (20MHz, Second-antenna)

Test Position	Cover Type	Duty Cycle	RB allocation	RB offset	Channel/Frequency (MHz)	Tune-up (dBm)	Measured power (dBm)	Limit of SAR 1.6 W/kg (mW/g)				Plot No.
								Measured SAR1g	Power Drift (dB)	Scaling Factor	Report SAR1g	
Head SAR (QPSK)												
Left Cheek	standard	1:1	1	99	21100/2535	16.50	15.46	0.300	-0.028	1.27	0.381	/
Left Tilt	standard	1:1	1	99	21100/2535	16.50	15.46	0.342	-0.030	1.27	0.435	/
Right Cheek	standard	1:1	1	99	21100/2535	16.50	15.46	0.522	0.031	1.27	0.663	/
Right Tilt	standard	1:1	1	99	21100/2535	16.50	15.46	0.572	0.120	1.27	0.727	/
Left Cheek	standard	1:1	50%	50	21100/2535	16.50	15.45	0.291	0.000	1.27	0.371	/
Left Tilt	standard	1:1	50%	50	21100/2535	16.50	15.45	0.342	0.040	1.27	0.436	/
Right Cheek	standard	1:1	50%	50	21100/2535	16.50	15.45	0.524	0.140	1.27	0.667	/
Right Tilt	standard	1:1	50%	50	21100/2535	16.50	15.45	0.593	0.090	1.27	0.755	106
Right Tilt	standard	1:1	1	99	37850/2580(PCC)	16.50	15.40	0.483	0.081	1.29	0.622	/
	standard	1:1	1	0	38048/2599.8(SCC)							
Right Tilt	Battery2	1:1	50%	50	21100/2535	16.50	15.45	0.585	0.079	1.27	0.745	/
Body-worn SAR (QPSK, Distance 15mm)												
Back Side	standard	1:1	1	99	21100/2535	20.50	20.19	0.280	0.021	1.07	0.301	107
Front Side	standard	1:1	1	99	21100/2535	20.50	20.19	0.119	0.048	1.07	0.128	/
Back Side	standard	1:1	50%	50	20850/2510	20.50	20.04	0.276	0.081	1.11	0.307	/
Front Side	standard	1:1	50%	50	20850/2510	20.50	20.04	0.119	0.127	1.11	0.132	/
Back Side	Standard	1:1	1	99	37850/2580(PCC)	20.50	19.43	0.174	0.087	1.28	0.223	/
			1	0	38048/2599.8(SCC)							/
Back Side	Battery2	1:1	1	99	21100/2535	20.50	20.19	0.278	0.034	1.07	0.299	/
Hotspot SAR(QPSK, Distance 10mm)												
Back Side	standard	1:1	1	99	21100/2535	20.50	20.19	0.437	-0.028	1.07	0.469	108
Front Side	standard	1:1	1	99	21100/2535	20.50	20.19	0.178	0.062	1.07	0.191	/
Left Edge	standard	1:1	1	99	21100/2535	20.50	20.19	0.070	0.115	1.07	0.075	/
Right Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Top Edge	standard	1:1	1	99	21100/2535	20.50	20.19	0.379	0.120	1.07	0.407	/
Bottom Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Back Side	standard	1:1	50%	50	20850/2510	20.50	20.04	0.372	0.059	1.11	0.414	/
Front Side	standard	1:1	50%	50	20850/2510	20.50	20.04	0.170	0.042	1.11	0.189	/
Left Edge	standard	1:1	50%	50	20850/2510	20.50	20.04	0.086	0.083	1.11	0.095	/
Right Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Top Edge	standard	1:1	50%	50	20850/2510	20.50	20.04	0.372	0.000	1.11	0.414	/
Bottom Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A



Back Side	Standard	1:1	1	99	37850/2580(P CC)	20.50	19.43	0.367	0.065	1.28	0.470	/
			1	0	38048/2599.8(SCC)							/
Back Side	Battery2	1:1	1	99	21100/2535	20.50	20.19	0.427	0.031	1.07	0.459	/

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

2. For QPSK with 100% RB allocation, SAR is required when and the highest reported SAR for 1 RB and 50% RB allocation in are \geq 50% limit(10g).

Table 33: LTE Band 12 (10MHz, Second-antenna)

Test Position	Cover Type	Duty Cycle	RB allocation	RB offset	Channel/Frequency (MHz)	Tune-up (dBm)	Measured power (dBm)	Limit of SAR 1.6 W/kg (mW/g)				Plot No.
								Measured SAR1g	Power Drift (dB)	Scaling Factor	Report SAR1g	
Head SAR (QPSK)												
Left Cheek	standard	1:1	1	25	23060/704	21.00	20.34	0.292	0.043	1.16	0.340	/
Left Tilt	standard	1:1	1	25	23060/704	21.00	20.34	0.245	0.150	1.16	0.285	/
Right Cheek	standard	1:1	1	25	23060/704	21.00	20.34	0.411	-0.130	1.16	0.478	109
Right Tilt	standard	1:1	1	25	23060/704	21.00	20.34	0.396	0.020	1.16	0.461	/
Left Cheek	standard	1:1	50%	13	23060/704	21.00	20.32	0.297	0.000	1.17	0.347	/
Left Tilt	standard	1:1	50%	13	23060/704	21.00	20.32	0.236	-0.027	1.17	0.276	/
Right Cheek	standard	1:1	50%	13	23060/704	21.00	20.32	0.401	0.070	1.17	0.469	/
Right Tilt	standard	1:1	50%	13	23060/704	21.00	20.32	0.410	0.070	1.17	0.479	/
Right Tilt	Battery2	1:1	50%	13	23060/704	21.00	20.32	0.406	0.082	1.17	0.475	/
Body-worn SAR (QPSK, Distance 15mm)												
Back Side	standard	1:1	1	25	23130/711	25.00	24.63	0.139	0.010	1.09	0.151	/
Front Side	standard	1:1	1	25	23130/711	25.00	24.63	0.153	0.022	1.09	0.167	110
Back Side	standard	1:1	50%	0	23095/707.5	24.00	23.59	0.088	0.050	1.10	0.096	/
Front Side	standard	1:1	50%	0	23095/707.5	24.00	23.59	0.093	0.140	1.10	0.102	/
Front Side	Battery2	1:1	1	25	23130/711	25.00	24.63	0.148	0.026	1.09	0.161	/
Hotspot SAR(QPSK, Distance 10mm)												
Back Side	standard	1:1	1	25	23130/711	25.00	24.63	0.306	0.050	1.09	0.333	/
Front Side	standard	1:1	1	25	23130/711	25.00	24.63	0.363	0.130	1.09	0.395	111
Left Edge	standard	1:1	1	25	23130/711	25.00	24.63	0.109	0.110	1.09	0.119	/
Right Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Top Edge	standard	1:1	1	25	23130/711	25.00	24.63	0.209	-0.180	1.09	0.228	/
Bottom Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Back Side	standard	1:1	50%	0	23095/707.5	24.00	23.59	0.203	0.020	1.10	0.223	/
Front Side	standard	1:1	50%	0	23095/707.5	24.00	23.59	0.240	0.031	1.10	0.264	/
Left Edge	standard	1:1	50%	0	23095/707.5	24.00	23.59	0.101	0.080	1.10	0.111	/
Right Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Top Edge	standard	1:1	50%	0	23095/707.5	24.00	23.59	0.129	0.120	1.10	0.142	/
Bottom Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front Side	Battery2	1:1	1	25	23130/711	25.00	24.63	0.357	0.043	1.09	0.389	/
Note: 1. The value with blue color is the maximum SAR Value of each test band. 2. For QPSK with 100% RB allocation, SAR is required when and the highest reported SAR for 1 RB and 50% RB allocation in are $\geq 50\%$ limit(10g).												

Table 34: LTE Band 17 (10MHz, Second-antenna)

Test Position	Cover Type	Duty Cycle	RB allocation	RB offset	Channel/Frequency (MHz)	Tune-up (dBm)	Measured power (dBm)	Limit of SAR 1.6 W/kg (mW/g)				Plot No.
								Measured SAR1g	Power Drift (dB)	Scaling Factor	Report SAR1g	
Head SAR (QPSK)												
Left Cheek	standard	1:1	1	25	23790/710	21.00	20.38	0.343	-0.050	1.15	0.396	/
Left Tilt	standard	1:1	1	25	23790/710	21.00	20.38	0.301	0.080	1.15	0.347	/
Right Cheek	standard	1:1	1	25	23790/710	21.00	20.38	0.468	0.060	1.15	0.540	/
Right Tilt	standard	1:1	1	25	23790/710	21.00	20.38	0.473	0.025	1.15	0.546	/
Left Cheek	standard	1:1	50%	25	23800/711	21.00	20.30	0.361	-0.010	1.17	0.424	/
Left Tilt	standard	1:1	50%	25	23800/711	21.00	20.30	0.320	-0.010	1.17	0.376	/
Right Cheek	standard	1:1	50%	25	23800/711	21.00	20.30	0.480	-0.180	1.17	0.564	112
Right Tilt	standard	1:1	50%	25	23800/711	21.00	20.30	0.453	0.130	1.17	0.532	/
Right Cheek	Battery2	1:1	50%	25	23800/711	21.00	20.30	0.473	0.022	1.17	0.556	//
Body-worn SAR (QPSK, Distance 15mm)												
Back Side	standard	1:1	1	25	23780/709	25.00	24.60	0.122	0.060	1.10	0.134	113
Front Side	standard	1:1	1	25	23780/709	25.00	24.60	0.120	0.031	1.10	0.132	/
Back Side	standard	1:1	50%	25	23780/709	24.00	23.54	0.098	-0.020	1.11	0.109	/
Front Side	standard	1:1	50%	25	23780/709	24.00	23.54	0.104	0.029	1.11	0.116	/
Back Side	Battery2	1:1	1	25	23780/709	25.00	24.60	0.118	0.041	1.10	0.129	/
Hotspot SAR(QPSK, Distance 10mm)												
Back Side	standard	1:1	1	25	23780/709	25.00	24.60	0.339	0.120	1.10	0.372	114
Front Side	standard	1:1	1	25	23780/709	25.00	24.60	0.265	0.024	1.10	0.291	/
Left Edge	standard	1:1	1	25	23780/709	25.00	24.60	0.098	0.012	1.10	0.107	/
Right Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Top Edge	standard	1:1	1	25	23780/709	25.00	24.60	0.184	0.150	1.10	0.202	/
Bottom Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Back Side	standard	1:1	50%	25	23780/709	24.00	23.54	0.205	-0.170	1.11	0.228	/
Front Side	standard	1:1	50%	25	23780/709	24.00	23.54	0.245	0.020	1.11	0.272	/
Left Edge	standard	1:1	50%	25	23780/709	24.00	23.54	0.087	0.100	1.11	0.097	/
Right Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Top Edge	standard	1:1	50%	25	23780/709	24.00	23.54	0.160	0.080	1.11	0.178	/
Bottom Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Back Side	Battery2	1:1	1	25	23780/709	25.00	24.60	0.327	0.140	1.10	0.359	/
Note: 1. The value with blue color is the maximum SAR Value of each test band. 2. For QPSK with 100% RB allocation, SAR is required when and the highest reported SAR for 1 RB and 50% RB allocation in are $\geq 50\%$ limit(10g).												

Table 35: LTE Band 26 (15MHz, Second-antenna)

Test Position	Cover Type	Duty Cycle	RB allocation	RB offset	Channel/Frequency (MHz)	Tune-up (dBm)	Measured power (dBm)	Limit of SAR 1.6 W/kg (mW/g)				Plot No.
								Measured SAR1g	Power Drift (dB)	Scaling Factor	Report SAR1g	
Head SAR (QPSK)												
Left Cheek	standard	1:1	1	38	26965/841.5	20.00	19.23	0.359	0.029	1.19	0.429	/
Left Tilt	standard	1:1	1	38	26965/841.5	20.00	19.23	0.295	0.045	1.19	0.352	/
Right Cheek	standard	1:1	1	38	26965/841.5	20.00	19.23	0.379	0.030	1.19	0.453	115
Right Tilt	standard	1:1	1	38	26965/841.5	20.00	19.23	0.323	0.021	1.19	0.386	/
Left Cheek	standard	1:1	50%	39	26965/841.5	20.00	19.21	0.342	0.040	1.20	0.410	/
Left Tilt	standard	1:1	50%	39	26965/841.5	20.00	19.21	0.279	0.090	1.20	0.335	/
Right Cheek	standard	1:1	50%	39	26965/841.5	20.00	19.21	0.371	0.150	1.20	0.445	/
Right Tilt	standard	1:1	50%	39	26965/841.5	20.00	19.21	0.311	0.020	1.20	0.373	/
Right Cheek	Battery2	1:1	1	38	26965/841.5	20.00	19.23	0.371	0.026	1.19	0.443	/
Body-worn SAR (QPSK, Distance 15mm)												
Back Side	standard	1:1	1	38	26865/831.5	25.00	24.48	0.197	-0.050	1.13	0.222	/
Front Side	standard	1:1	1	38	26865/831.5	25.00	24.48	0.209	0.140	1.13	0.236	116
Back Side	standard	1:1	50%	0	26765/821.5	24.00	23.48	0.161	0.000	1.13	0.181	/
Front Side	standard	1:1	50%	0	26765/821.5	24.00	23.48	0.176	0.150	1.13	0.198	/
Front Side	Battery2	1:1	1	38	26865/831.5	25.00	24.48	0.205	0.170	1.13	0.231	/
Hotspot SAR(QPSK, Distance 10mm)												
Back Side	standard	1:1	1	38	26865/831.5	25.00	24.48	0.265	0.090	1.13	0.299	/
Front Side	standard	1:1	1	38	26865/831.5	25.00	24.48	0.279	0.140	1.13	0.314	/
Left Edge	standard	1:1	1	38	26865/831.5	25.00	24.48	0.087	0.011	1.13	0.098	/
Right Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Top Edge	standard	1:1	1	38	26865/831.5	25.00	24.48	0.188	-0.160	1.13	0.212	/
Bottom Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Back Side	standard	1:1	50%	0	26765/821.5	24.00	23.48	0.278	-0.010	1.13	0.313	/
Front Side	standard	1:1	50%	0	26765/821.5	24.00	23.48	0.292	0.150	1.13	0.329	117
Left Edge	standard	1:1	50%	0	26765/821.5	24.00	23.48	0.064	0.014	1.13	0.072	/
Right Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Top Edge	standard	1:1	50%	0	26765/821.5	24.00	23.48	0.221	0.023	1.13	0.249	/
Bottom Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front Side	Battery2	1:1	50%	0	26765/821.5	24.00	23.48	0.288	0.020	1.13	0.325	/
Note: 1. The value with blue color is the maximum SAR Value of each test band. 2. For QPSK with 100% RB allocation, SAR is required when and the highest reported SAR for 1 RB and 50% RB allocation in are $\geq 50\%$ limit(10g).												

Table 36: LTE Band 38 (20MHz, Second-antenna)

Test Position	Cover Type	Duty Cycle	RB allocation	RB offset	Channel/Frequency (MHz)	Tune-up (dBm)	Measured power (dBm)	Limit of SAR 1.6 W/kg (mW/g)				Plot No.
								Measured SAR1g	Power Drift (dB)	Scaling Factor	Report SAR1g	
Head SAR (QPSK)												
Left Cheek	standard	1:1.58	1	99	38000/2595	18.13	17.38	0.211	-0.030	1.19	0.250	/
Left Tilt	standard	1:1.58	1	99	38000/2595	18.13	17.38	0.172	-0.050	1.19	0.204	/
Right Cheek	standard	1:1.58	1	99	38000/2595	18.13	17.38	0.294	0.033	1.19	0.349	/
Right Tilt	standard	1:1.58	1	99	38000/2595	18.13	17.38	0.295	0.050	1.19	0.350	/
Left Cheek	standard	1:1.58	50%	50	37850/2580	18.13	17.32	0.182	-0.022	1.20	0.219	/
Left Tilt	standard	1:1.58	50%	50	37850/2580	18.13	17.32	0.170	-0.030	1.20	0.205	/
Right Cheek	standard	1:1.58	50%	50	37850/2580	18.13	17.32	0.298	-0.041	1.20	0.359	118
Right Tilt	standard	1:1.58	50%	50	37850/2580	18.13	17.32	0.282	0.035	1.20	0.339	/
Right Cheek	Standard	1:1.58	1	99	37850/2580(PCC)	18.13	17.08	0.264	-0.021	1.27	0.336	/
			1	0	38048/2599.8(SCC)							/
Right Cheek	Battery2	1:1.58	50%	50	37850/2580	18.13	17.32	0.295	-0.037	1.20	0.355	/
Body-worn SAR (QPSK, Distance 15mm)												
Back Side	standard	1:1.58	1	0	37850/2580	22.63	22.00	0.059	0.047	1.16	0.068	119
Front Side	standard	1:1.58	1	0	37850/2580	22.63	22.00	0.047	0.070	1.16	0.055	/
Back Side	standard	1:1.58	50%	0	38000/2595	21.63	21.02	0.048	0.101	1.15	0.055	/
Front Side	standard	1:1.58	50%	0	38000/2595	21.63	21.02	0.039	0.104	1.15	0.044	/
Back Side	Standard	1:1.58	1	99	37850/2580(PCC)	22.63	21.18	0.042	0.032	1.40	0.059	/
			1	0	38048/2599.8(SCC)							/
Back Side	Battery2	1:1.58	1	0	37850/2580	22.63	22.00	0.052	0.039	1.16	0.060	/
Hotspot SAR(QPSK, Distance 10mm)												
Back Side	standard	1:1.58	1	0	37850/2580	22.63	22.00	0.215	-0.061	1.16	0.249	/
Front Side	standard	1:1.58	1	0	37850/2580	22.63	22.00	0.129	0.092	1.16	0.149	/
Left Edge	standard	1:1.58	1	0	37850/2580	22.63	22.00	0.076	0.067	1.16	0.088	/
Right Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Top Edge	standard	1:1.58	1	0	37850/2580	22.63	22.00	0.233	0.140	1.16	0.269	120
Bottom Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Back Side	standard	1:1.58	50%	0	38000/2595	21.63	21.02	0.209	0.049	1.15	0.241	/
Front Side	standard	1:1.58	50%	0	38000/2595	21.63	21.02	0.105	0.037	1.15	0.121	/
Left Edge	standard	1:1.58	50%	0	38000/2595	21.63	21.02	0.069	0.087	1.15	0.079	/
Right Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Top Edge	standard	1:1.58	50%	0	38000/2595	21.63	21.02	0.181	0.060	1.15	0.208	/
Bottom Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A



Back Side	Standard	1:1.58	1	99	37850/2580(PCC)	22.63	21.18	0.189	0.040	1.40	0.264	/
			1	0	38048/2599.8(SCC)							/
Top Edge	Battery2	1:1.58	1	0	37850/2580	22.63	22.00	0.228	0.130	1.16	0.264	/

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

2. For QPSK with 100% RB allocation, SAR is required when and the highest reported SAR for 1 RB and 50% RB allocation in are \geq 50% limit(10g).

Table 37: LTE Band 41 (20MHz, Second-antenna)

Test Position	Cover Type	Duty Cycle	RB allocation	RB offset	Channel/Frequency (MHz)	Tune-up (dBm)	Measured power (dBm)	Limit of SAR 1.6 W/kg (mW/g)				Plot No.
								Measured SAR1g	Power Drift (dB)	Scaling Factor	Report SAR1g	
Head SAR (QPSK)												
Left Cheek	standard	1:1.58	1	50	40185/2549.5	18.13	17.15	0.198	0.110	1.25	0.248	/
Left Tilt	standard	1:1.58	1	50	40185/2549.5	18.13	17.15	0.183	0.010	1.25	0.229	/
Right Cheek	standard	1:1.58	1	50	40185/2549.5	18.13	17.15	0.314	0.050	1.25	0.393	/
Right Tilt	standard	1:1.58	1	50	40185/2549.5	18.13	17.15	0.328	0.000	1.25	0.411	/
Left Cheek	standard	1:1.58	50%	50	40185/2549.5	18.13	17.09	0.218	-0.150	1.27	0.277	/
Left Tilt	standard	1:1.58	50%	50	40185/2549.5	18.13	17.09	0.206	-0.090	1.27	0.261	/
Right Cheek	standard	1:1.58	50%	50	40185/2549.5	18.13	17.09	0.311	0.130	1.27	0.395	/
Right Tilt	standard	1:1.58	50%	50	40185/2549.5	18.13	17.09	0.341	0.110	1.27	0.433	121
Right Cheek	Standard	1:1.58	1	99	40140/2545(PCC)	17.13	16.65	0.246	0.098	1.12	0.275	/
			1	0	40338/2564.8(SCC)							/
Right Tilt	Battery2	1:1.58	50%	50	40185/2549.5	18.13	17.09	0.335	0.150	1.27	0.425	/
Body-worn SAR (QPSK, Distance 15mm)												
Back Side	standard	1:1.58	1	50	40185/2549.5	23.13	22.28	0.120	0.026	1.21	0.146	122
Front Side	standard	1:1.58	1	50	40185/2549.5	23.13	22.28	0.070	0.049	1.21	0.085	/
Back Side	standard	1:1.58	50%	50	40185/2549.5	23.13	21.26	0.110	0.030	1.54	0.169	/
Front Side	standard	1:1.58	50%	50	40185/2549.5	23.13	21.26	0.065	0.108	1.54	0.099	/
Back Side	Standard	1:1.58	1	99	40140/2545(PCC)	22.13	21.55	0.078	0.060	1.14	0.089	/
			1	0	40338/2564.8(SCC)							/
Back Side	Battery2	1:1.58	50%	50	40185/2549.5	23.13	21.26	0.116	0.021	1.54	0.178	/
Hotspot SAR(QPSK, Distance 10mm)												
Back Side	standard	1:1.58	1	50	40185/2549.5	23.13	22.28	0.249	0.069	1.21	0.302	123
Front Side	standard	1:1.58	1	50	40185/2549.5	23.13	22.28	0.115	0.190	1.21	0.140	/
Left Edge	standard	1:1.58	1	50	40185/2549.5	23.13	22.28	0.087	0.110	1.21	0.106	/
Right Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Top Edge	standard	1:1.58	1	50	40185/2549.5	23.13	22.28	0.244	-0.160	1.21	0.296	/
Bottom Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Back Side	standard	1:1.58	50%	50	40185/2549.5	23.13	21.26	0.239	0.076	1.54	0.367	/
Front Side	standard	1:1.58	50%	50	40185/2549.5	23.13	21.26	0.111	0.065	1.54	0.171	/
Left Edge	standard	1:1.58	50%	50	40185/2549.5	23.13	21.26	0.074	0.012	1.54	0.114	/
Right Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Top Edge	standard	1:1.58	50%	50	40185/2549.5	23.13	21.26	0.239	0.080	1.54	0.367	/
Bottom Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A



Back Side	Standard	1:1.58	1	99	40140/2545(PCC)	22.13	21.55	0.168	0.043	1.14	0.192	/
			1	0	40338/2564.8(SCC)							/
Back Side	Battery2	1:1.58	50%	50	40185/2549.5	23.13	21.26	0.243	0.057	1.54	0.373	/

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

2. For QPSK with 100% RB allocation, SAR is required when and the highest reported SAR for 1 RB and 50% RB allocation in are \geq 50% limit(10g).

Table 38: LTE Band 66 (20MHz, Second-antenna)

Test Position	Cover Type	Duty Cycle	RB allocation	RB offset	Channel/Frequency (MHz)	Tune-up (dBm)	Measured power (dBm)	Limit of SAR 1.6 W/kg (mW/g)				Plot No.
								Measured SAR1g	Power Drift (dB)	Scaling Factor	Report SAR1g	
Head SAR (QPSK)												
Left Cheek	Standard	1:1.58	1	99	132072/1720	17.50	16.75	0.247	0.080	1.19	0.294	/
Left Tilt	Standard	1:1.58	1	99	132072/1720	17.50	16.75	0.323	0.023	1.19	0.384	/
Right Cheek	Standard	1:1.58	1	99	132072/1720	17.50	16.75	0.289	0.110	1.19	0.343	/
Right Tilt	Standard	1:1.58	1	99	132072/1720	17.50	16.75	0.402	0.090	1.19	0.478	124
Left Cheek	Standard	1:1.58	50%	50	132072/1720	17.50	16.73	0.231	0.120	1.19	0.276	/
Left Tilt	Standard	1:1.58	50%	50	132072/1720	17.50	16.73	0.298	0.040	1.19	0.356	/
Right Cheek	Standard	1:1.58	50%	50	132072/1720	17.50	16.73	0.264	0.020	1.19	0.315	/
Right Tilt	Standard	1:1.58	50%	50	132072/1720	17.50	16.73	0.398	0.056	1.19	0.475	/
Right Tilt	Battery2	1:1.58	1	99	132072/1720	17.50	16.75	0.396	0.079	1.19	0.471	/
Body-worn SAR (QPSK, Distance 15mm)												
Back Side	Standard	1:1.58	1	50	132072/1720	22.50	21.75	0.134	0.190	1.19	0.159	/
Front Side	Standard	1:1.58	1	50	132072/1720	22.50	21.75	0.147	0.030	1.19	0.175	125
Back Side	Standard	1:1.58	50%	0	132072/1720	21.50	20.85	0.099	0.140	1.16	0.115	/
Front Side	Standard	1:1.58	50%	0	132072/1720	21.50	20.85	0.105	0.051	1.16	0.122	/
Front Side	Battery2	1:1.58	1	50	132072/1720	22.50	21.75	0.141	0.035	1.19	0.168	/
Hotspot SAR(QPSK, Distance 10mm)												
Back Side	Standard	1:1.58	1	50	132072/1720	22.50	21.75	0.106	0.080	1.19	0.126	/
Front Side	Standard	1:1.58	1	50	132072/1720	22.50	21.75	0.118	0.038	1.19	0.140	/
Left Edge	Standard	1:1.58	1	50	132072/1720	22.50	21.75	0.087	0.021	1.19	0.103	/
Right Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Top Edge	Standard	1:1.58	1	50	132072/1720	22.50	21.75	0.233	0.000	1.19	0.277	126
Bottom Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Back Side	Standard	1:1.58	50%	0	132072/1720	21.50	20.85	0.101	0.190	1.16	0.117	/
Front Side	Standard	1:1.58	50%	0	132072/1720	21.50	20.85	0.114	0.170	1.16	0.132	/
Left Edge	Standard	1:1.58	50%	0	132072/1720	21.50	20.85	0.057	0.110	1.16	0.066	/
Right Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Top Edge	Standard	1:1.58	50%	0	132072/1720	21.50	20.85	0.209	0.035	1.16	0.243	/
Bottom Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Top Edge	Battery2	1:1.58	1	50	132072/1720	22.50	21.75	0.229	0.054	1.19	0.272	/
Note: 1. The value with blue color is the maximum SAR Value of each test band. 2. For QPSK with 100% RB allocation, SAR is required when and the highest reported SAR for 1 RB and 50% RB allocation in are \geq 50% limit(10g).												

Table 39: Wi-Fi 2.4G (Ant 1-SISO)

Test Position	Cover Type	Sensor	Mode	Duty Cycle	Channel/Frequency (MHz)	Tune-up dBm	Measured power (dBm)	Limit of SAR 1.6 W/kg (mW/g)					Plot No.
								Area Scan SAR 1g	Zoom Scan SAR 1g	Power Drift (dB)	Scaling Factor	Report SAR 1g	
Head SAR													
Left Cheek	standard	off	802.11b	99.9%	6/2437	13.00	12.85	0.205	0.273	-0.021	1.04	0.283	/
Left Tilt	standard	off	802.11b	99.9%	6/2437	13.00	12.85	0.229	0.301	0.110	1.04	0.312	127
Right Cheek	standard	off	802.11b	99.9%	6/2437	13.00	12.85	0.115	0.122	0.120	1.04	0.126	/
Right Tilt	standard	off	802.11b	99.9%	6/2437	13.00	12.85	0.141	0.153	0.130	1.04	0.159	/
Left Tilt	Battery2	off	802.11b	99.9%	6/2437	13.00	12.85	0.218	0.297	0.130	1.04	0.308	/
Body-worn SAR (Distance 15mm)													
Back Side	standard	off	802.11b	100.0%	6/2437	18.00	16.78	0.090	0.092	0.120	1.32	0.121	128
Front Side	standard	off	802.11b	100.0%	6/2437	18.00	16.78	0.056	0.056	0.069	1.32	0.074	/
Back Side	Battery2	off	802.11b	100.0%	6/2437	18.00	16.78	0.075	0.087	0.110	1.33	0.115	/
Hotspot SAR(Distance 10mm)													
Back Side	standard	off	802.11b	100.0%	6/2437	18.00	16.78	0.145	0.147	0.090	1.32	0.195	/
Front Side	standard	off	802.11b	100.0%	6/2437	18.00	16.78	0.161	0.161	0.080	1.32	0.213	/
Left Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Right Edge	standard	off	802.11b	100.0%	6/2437	18.00	16.78	0.131	0.134	0.034	1.33	0.178	/
Top Edge	standard	off	802.11b	100.0%	6/2437	18.00	16.78	0.211	0.217	0.070	1.33	0.288	129
Bottom Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Top Edge	Battery2	off	802.11b	100.0%	6/2437	18.00	16.78	0.209	0.212	0.055	1.33	0.281	/

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

MAX Adjusted SAR							
Mode	Test Position	Channel/Frequency(MHz)	MAX Reported SAR _{1g} (W/kg)	802.11b Tune-up limit (dBm)	Tune-up limit (dBm)	Scaling Factor	Adjusted SAR _{1g} (W/kg)
802.11g	Left Tilt	6/2437	0.312	13.00	13.00	1.00	0.312
802.11n HT20	Left Tilt	6/2437	0.312	13.00	13.00	1.00	0.312
802.11n HT40	Left Tilt	6/2437	0.312	13.00	13.00	1.00	0.312
802.11g	Top Edge	6/2437	0.288	18.00	18.00	1.00	0.288
802.11n HT20	Top Edge	6/2437	0.288	18.00	17.00	0.79	0.228
802.11n HT40	Top Edge	6/2437	0.288	18.00	15.50	0.56	0.161

Note:
SAR is not required for OFDM when the highest reported SAR for DSSS is adjusted by the ratio of OFDM to DSSS specified maximum output power and the adjusted SAR is ≤ 1.2 W/kg.

Table 40: Wi-Fi 2.4G (Ant 2-SISO)

Test Position	Cover Type	Sensor	Mode	Duty Cycle	Channel/Frequency (MHz)	Tune-up dBm	Measured power (dBm)	Limit of SAR 1.6 W/kg (mW/g)					Plot No.
								Area Scan SAR 1g	Zoom Scan SAR 1g	Power Drift (dB)	Scaling Factor	Report SAR 1g	
Head SAR													
Left Cheek	standard	off	802.11b	99.9%	1/2412	13.00	12.67	0.006	0.091	0.021	1.08	0.098	130
Left Tilt	standard	off	802.11b	99.9%	1/2412	13.00	12.67	0.010	0.017	0.012	1.08	0.018	/
Right Cheek	standard	off	802.11b	99.9%	1/2412	13.00	12.67	0.014	0.015	0.022	1.08	0.016	/
Right Tilt	standard	off	802.11b	99.9%	1/2412	13.00	12.67	0.010	0.014	0.022	1.08	0.015	/
Left Tilt	Battery2	off	802.11b	99.9%	1/2412	13.00	12.67	0.017	0.088	0.025	1.08	0.095	/
Body-worn SAR (Distance 15mm)													
Back Side	standard	off	802.11b	100.0%	9/2452	17.00	15.85	0.046	0.057	0.034	1.30	0.074	131
Front Side	standard	off	802.11b	100.0%	9/2452	17.00	15.85	0.008	0.010	0.028	1.30	0.014	/
Back Side	Battery2	off	802.11b	100.0%	9/2452	17.00	15.85	0.041	0.052	0.033	1.30	0.068	/
Hotspot SAR(Distance 10mm)													
Back Side	standard	off	802.11b	100.0%	9/2452	17.00	15.85	0.150	0.165	0.027	1.30	0.215	132
Front Side	standard	off	802.11b	100.0%	9/2452	17.00	15.85	0.004	0.005	0.013	1.30	0.007	/
Left Edge	standard	off	802.11b	100.0%	9/2452	17.00	15.85	0.067	0.065	0.012	1.30	0.085	/
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
Top Edge	standard	off	802.11b	100.0%	9/2452	17.00	15.85	0.006	0.006	0.034	1.30	0.008	/
Bottom Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Back Side	Battery2	off	802.11b	100.0%	9/2452	17.00	15.85	0.158	0.161	0.023	1.30	0.210	/

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

MAX Adjusted SAR							
Mode	Test Position	Channel/Frequency(MHz)	MAX Reported SAR _{1g} (W/kg)	802.11b Tune-up limit (dBm)	Tune-up limit (dBm)	Scaling Factor	Adjusted SAR _{1g} (W/kg)
802.11g	Left Cheek	1/2412	0.098	13.00	13.00	1.00	0.098
802.11n HT20	Left Cheek	1/2412	0.098	13.00	13.00	1.00	0.098
802.11n HT40	Left Cheek	1/2412	0.098	13.00	13.00	1.00	0.098
802.11g	Back Side	9/2452	0.215	17.00	17.00	1.00	0.215
802.11n HT20	Back Side	9/2452	0.215	17.00	16.00	0.79	0.171
802.11n HT40	Back Side	9/2452	0.215	17.00	14.50	0.56	0.121

Note:
SAR is not required for OFDM when the highest reported SAR for DSSS is adjusted by the ratio of OFDM to DSSS specified maximum output power and the adjusted SAR is ≤ 1.2 W/kg.

Table 41: Wi-Fi 2.4G (Ant 1-MIMO)

Test Position	Cover Type	Sensor	Mode	Duty Cycle	Channel/Frequency (MHz)	Tune-up dBm	Measured power (dBm)	Limit of SAR 1.6 W/kg (mW/g)					Plot No.
								Area Scan SAR 1g	Zoom Scan SAR 1g	Power Drift (dB)	Scaling Factor	Report SAR 1g	
Head SAR													
Left Cheek	standard	off	802.11n HT40	97.3%	6/2437	13.00	11.83	0.137	0.219	0.020	1.35	0.295	/
Left Tilt	standard	off	802.11n HT40	97.3%	6/2437	13.00	11.83	0.191	0.264	0.130	1.35	0.355	133
Right Cheek	standard	off	802.11n HT40	97.3%	6/2437	13.00	11.83	0.097	0.102	0.090	1.35	0.137	/
Right Tilt	standard	off	802.11n HT40	97.3%	6/2437	13.00	11.83	0.094	0.117	0.075	1.35	0.157	/
Left Tilt	Battery2	off	802.11n HT40	97.3%	6/2437	13.00	11.83	0.179	0.257	0.054	1.35	0.346	/
Body-worn SAR (Distance 15mm)													
Back Side	standard	off	802.11g	99.1%	6/2437	18.00	16.42	0.054	0.055	0.089	1.45	0.080	/
Front Side	standard	off	802.11g	99.1%	6/2437	18.00	16.42	0.068	0.069	0.075	1.45	0.100	134
Front Side	Battery2	off	802.11g	99.1%	6/2437	18.00	16.42	0.046	0.063	0.047	1.45	0.091	/
Test Position	Cover Type	Sensor	Mode	Duty Cycle	Channel/Frequency (MHz)	Tune-up dBm	Test Position	Limit of SAR 4W/kg (mW/g)					Plot No.
								Area Scan SAR 10g	Zoom Scan SAR 10g	Power Drift (dB)	Scaling Factor	Report SAR 10g	
Product Specific 10-g SAR (Distance 0mm)													
Back Side	standard	off	802.11g	99.1%	6/2437	18.00	16.42	0.289	0.287	0.090	1.45	0.417	/
Front Side	standard	off	802.11g	99.1%	6/2437	18.00	16.42	0.309	0.312	0.089	1.45	0.453	/
Left Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Right Edge	standard	off	802.11g	99.1%	6/2437	18.00	16.42	0.314	0.318	0.089	1.45	0.462	/
Top Edge	standard	off	802.11g	99.1%	6/2437	18.00	16.42	0.726	0.761	0.030	1.45	1.105	135
Bottom Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Top Edge	Battery2	off	802.11g	99.1%	6/2437	18.00	16.42	0.747	0.758	0.036	1.45	1.100	/

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

MAX Adjusted SAR							
Mode	Test Position	Channel/ Frequency(MHz)	MAX ReportedSAR _{1g} (W/kg)	802.11n HT40Tune-up limit (dBm)	Tune-up limit (dBm)	Scaling Factor	Adjusted SAR _{1g} (W/kg)
802.11g	Left Tilt	6/2437	0.355	13.00	13.00	1.00	0.355
802.11n HT20	Left Tilt	6/2437	0.355	13.00	13.00	1.00	0.355
Mode	Test Position	Channel/ Frequency(MHz)	MAX ReportedSAR _{1g} (W/kg)	802.11g Tune-up limit (dBm)	Tune-up limit (dBm)	Scaling Factor	Adjusted SAR _{1g} (W/kg)
802.11n HT20	Top Edge	6/2437	1.105	18.00	17.00	0.79	0.878
802.11n HT40	Top Edge	6/2437	1.105	18.00	15.50	0.56	0.621

Note:

SAR is not required for OFDM when the highest reported SAR for DSSS is adjusted by the ratio of OFDM to DSSS specified maximum output power and the adjusted SAR is ≤ 1.2 W/kg.

Table 42: Wi-Fi 2.4G (Ant 2- MIMO)

Test Position	Cover Type	Sensor	Mode	Duty Cycle	Channel/Frequency (MHz)	Tune-up (dBm)	Measured power (dBm)	Limit of SAR 1.6 W/kg (mW/g)					Plot No.
								Area Scan SAR 1g	Zoom Scan SAR 1g	Power Drift (dB)	Scaling Factor	Report SAR 1g	
Head SAR													
Left Cheek	standard	off	802.11n HT40	97.3%	5/2432	13.00	11.81	0.006	0.081	0.020	1.35	0.109	136
Left Tilt	standard	off	802.11n HT40	97.3%	5/2432	13.00	11.81	0.009	0.010	0.030	1.35	0.014	/
Right Cheek	standard	off	802.11n HT40	97.3%	5/2432	13.00	11.81	0.012	0.011	0.063	1.35	0.014	/
Right Tilt	standard	off	802.11n HT40	97.3%	5/2432	13.00	11.81	0.010	0.010	0.024	1.35	0.014	/
Left Cheek	Battery2	off	802.11n HT40	97.3%	5/2432	13.00	11.81	0.028	0.077	0.036	1.35	0.104	/
Body-worn SAR (Distance 15mm)													
Back Side	standard	off	802.11g	99.1%	6/2437	17.00	15.84	0.040	0.047	0.025	1.32	0.062	137
Front Side	standard	off	802.11g	99.1%	6/2437	17.00	15.84	0.006	0.007	0.034	1.32	0.009	/
Back Side	Battery2	off	802.11g	99.1%	6/2437	17.00	15.84	0.035	0.043	0.028	1.32	0.057	/
Test Position	Cover Type	Sensor	Mode	Duty Cycle	Channel/Frequency (MHz)	Tune-up (dBm)	Measured power (dBm)	Limit of SAR 4 W/kg (mW/g)					Plot No.
								Area Scan SAR 10g	Zoom Scan SAR 10g	Power Drift (dB)	Scaling Factor	Report SAR 10g	
Product Specific 10-g SAR (Distance 0mm)													
Back Side	standard	off	802.11g	99.1%	6/2437	17.00	15.84	0.243	0.335	-0.036	1.32	0.441	138
Front Side	standard	off	802.11g	99.1%	6/2437	17.00	15.84	0.009	0.009	0.013	1.32	0.012	/
Left Edge	standard	off	802.11g	99.1%	6/2437	17.00	15.84	0.112	0.113	0.090	1.32	0.149	/
Right Edge	N/A	off	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Top Edge	standard	off	802.11g	99.1%	6/2437	17.00	15.84	0.009	0.009	0.076	1.32	0.012	/
Bottom Edge	N/A	off	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Back Side	Battery2	off	802.11g	99.1%	6/2437	17.00	15.84	0.315	0.332	0.037	1.32	0.437	/

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

MAX Adjusted SAR							
Mode	Test Position	Channel/ Frequency(MHz)	MAX ReportedSAR _{1g} (W/kg)	802.11n HT40Tune-up limit (dBm)	Tune-up limit (dBm)	Scaling Factor	Adjusted SAR _{1g} (W/kg)
802.11g	Left Cheek	5/2432	0.109	13.00	13.00	1.00	0.109
802.11n HT20	Left Cheek	5/2432	0.109	13.00	13.00	1.00	0.109
Mode	Test Position	Channel/ Frequency(MHz)	MAX ReportedSAR _{1g} (W/kg)	802.11g Tune-up limit (dBm)	Tune-up limit (dBm)	Scaling Factor	Adjusted SAR _{1g} (W/kg)
802.11n HT20	Back Side	6/2437	0.441	17.00	16.00	0.79	0.350
802.11n HT40	Back Side	6/2437	0.441	17.00	14.50	0.56	0.248

Note:
SAR is not required for OFDM when the highest reported SAR for DSSS is adjusted by the ratio of OFDM to DSSS specified maximum output power and the adjusted SAR is ≤ 1.2 W/kg.

Table 43: Wi-Fi 5G,U-NII-1 (Ant 1)

Test Position	Cover Type	Sensor	Mode	Duty Cycle	Channel/Frequency (MHz)	Tune-up (dBm)	Measured power (dBm)	Limit of SAR 1.6 W/kg (mW/g)					Plot No.
								Area Scan SAR 1g	Zoom Scan SAR 1g	Power Drift (dB)	Scaling Factor	Report SAR 1g	
Hotspot SAR(Distance 10mm)													
Back Side	Standard	off	802.11a	99.2%	44/5220	16.00	15.67	0.182	0.049	0.037	1.09	0.053	/
Front Side	Standard	off	802.11a	99.2%	44/5220	16.00	15.67	0.149	0.046	0.040	1.09	0.050	/
Left Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Right Edge	Standard	off	802.11a	99.2%	44/5220	16.00	15.67	0.098	0.099	0.090	1.09	0.108	/
Top Edge	Standard	off	802.11a	99.2%	44/5220	16.00	15.67	0.244	0.238	-0.040	1.09	0.259	139
Bottom Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Top Edge	Battery2	off	802.11a	99.2%	44/5220	16.00	15.67	0.210	0.203	-0.029	1.09	0.221	/

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

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

Table 44: Wi-Fi 5G U-NII-2A (Ant 1)

Per 248227, for band U-NII-1 and U-NII-2A, when the same maximum output power is specified for both bands, begin SAR measurement in U-NII-2A band by applying the OFDM SAR requirements. If the highest reported SAR for a test configuration is ≤ 1.2 W/kg, SAR is not required for U-NII-1 band for that configuration (802.11 mode and exposure condition); otherwise, each band is tested independently for SAR.

Test Position	Cover Type	Sensor	Mode	Duty Cycle	Channel/Frequency (MHz)	Tune-up (dBm)	Measured power (dBm)	Limit of SAR 1.6 W/kg (mW/g)					Plot No.
								Area Scan SAR 1g	Zoom Scan SAR 1g	Power Drift (dB)	Scaling Factor	Report SAR 1g	
Head SAR													
Left Cheek	standard	off	802.11n HT40	98.0%	54/5270	12.00	11.61	0.239	0.271	-0.045	1.12	0.303	/
Left Tilt	standard	off	802.11n HT40	98.0%	54/5270	12.00	11.61	0.219	0.272	0.136	1.12	0.304	140
Right Cheek	standard	off	802.11n HT40	98.0%	54/5270	12.00	11.61	0.172	0.180	0.028	1.12	0.201	/
Right Tilt	standard	off	802.11n HT40	98.0%	54/5270	12.00	11.61	0.182	0.190	0.111	1.12	0.212	/
Left Cheek	Battery2	off	802.11n HT40	98.0%	54/5270	12.00	11.61	0.204	0.236	-0.046	1.12	0.264	/
Body-worn SAR (Distance 15mm)													
Back Side	standard	off	802.11a	99.2%	52/5260	16.00	15.65	0.058	0.049	0.037	1.09	0.053	141
Front Side	standard	off	802.11a	99.2%	52/5260	16.00	15.65	0.001	0.001	0.000	1.09	0.001	/
Back Side	Battery2	off	802.11a	99.2%	52/5260	16.00	15.65	0.045	0.038	0.020	1.09	0.042	/
Test Position	Cover Type	Sensor	Mode	Duty Cycle	Channel/Frequency (MHz)	Tune-up (dBm)	Measured power (dBm)	Limit of SAR 4.0 W/kg (mW/g)					Plot No.
								Area Scan SAR 10g	Zoom Scan SAR 10g	Power Drift (dB)	Scaling Factor	Report SAR 10g	
Product Specific 10-g SAR (Distance 0mm)													
Back Side	standard	off	802.11a	99.2%	52/5260	16.00	15.65	0.191	0.204	-0.057	1.09	0.223	/
Front Side	standard	off	802.11a	99.2%	52/5260	16.00	15.65	0.203	0.227	0.056	1.09	0.248	/
Left Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Right Edge	standard	off	802.11a	99.2%	52/5260	16.00	15.65	0.159	0.172	0.018	1.09	0.188	/
Top Edge	standard	off	802.11a	99.2%	52/5260	16.00	15.65	0.500	0.391	0.026	1.09	0.427	142
Bottom Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Top Edge	Battery2	off	802.11a	99.2%	52/5260	16.00	15.65	0.373	0.386	-0.027	1.09	0.422	/

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

Table 45: Wi-Fi 5G U-NII-2C (Ant 1)

Test Position	Cover Type	Sensor	Mode	Duty Cycle	Channel/Frequency (MHz)	Tune-up (dBm)	Measured power (dBm)	Limit of SAR 1.6 W/kg (mW/g)					Plot No.
								Area Scan SAR 1g	Zoom Scan SAR 1g	Power Drift (dB)	Scaling Factor	Report SAR 1g	
Head SAR													
Left Cheek	standard	off	802.11n HT40	98.0%	118/5590	12.00	11.61	0.398	0.396	0.024	1.12	0.442	/
Left Tilt	standard	off	802.11n HT40	98.0%	110/5550	12.00	11.42	0.412	0.443	0.032	1.17	0.517	/
	standard	off	802.11n HT40	98.0%	118/5590	12.00	11.61	0.430	0.453	0.032	1.12	0.506	143
	standard	off	802.11n HT40	98.0%	134/5670	9.50	8.46	0.368	0.378	-0.046	1.30	0.490	/
Right Cheek	standard	off	802.11n HT40	98.0%	118/5590	12.00	11.61	0.118	0.134	0.012	1.12	0.150	/
Right Tilt	standard	off	802.11n HT40	98.0%	118/5590	12.00	11.61	0.116	0.201	0.040	1.12	0.224	/
Left Cheek	Battery2	off	802.11n HT40	98.0%	118/5590	12.00	11.61	0.391	0.408	0.146	1.12	0.455	/
Body-worn SAR (Distance 15mm)													
Back Side	standard	off	802.11a	99.2%	116/5580	16.00	14.78	0.078	0.072	-0.188	1.33	0.096	144
Front Side	standard	off	802.11a	99.2%	116/5580	16.00	14.78	0.001	0.001	0.000	1.33	0.001	/
Back Side	Battery2	off	802.11a	99.2%	116/5580	16.00	14.78	0.071	0.066	0.031	1.33	0.088	/
Test Position	Cover Type	Sensor	Mode	Duty Cycle	Channel/Frequency (MHz)	Tune-up (dBm)	Measured power (dBm)	Limit of SAR 4.0 W/kg (mW/g)					Plot No.
								Area Scan SAR 10g	Zoom Scan SAR 10g	Power Drift (dB)	Scaling Factor	Report SAR 10g	
Product Specific 10-g SAR (Distance 0mm)													
Back Side	standard	off	802.11a	99.2%	116/5580	16.00	14.78	0.368	0.375	0.025	1.34	0.500	/
Front Side	standard	off	802.11a	99.2%	116/5580	16.00	14.78	0.325	0.332	0.047	1.34	0.443	/
Left Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Right Edge	standard	off	802.11a	99.2%	116/5580	16.00	14.78	0.241	0.225	-0.090	1.34	0.300	/
Top Edge	standard	off	802.11a	99.2%	116/5580	16.00	14.78	0.660	0.580	-0.023	1.34	0.774	145
Bottom Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Top Edge	Battery2	off	802.11a	99.2%	116/5580	16.00	14.78	0.448	0.436	-0.035	1.34	0.582	/

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

Table 46: Wi-Fi 5G U-NII-3 (Ant 1)

Test Position	Cover Type	Sensor	Mode	Duty Cycle	Channel/Frequency (MHz)	Tune-up (dBm)	Measured power (dBm)	Limit of SAR 1.6 W/kg (mW/g)					Plot No.
								Area Scan SAR 1g	Zoom Scan SAR 1g	Power Drift (dB)	Scaling Factor	Report SAR 1g	
Head SAR													
Left Cheek	standard	off	802.11n HT40	98.0%	159/5795	12.00	11.46	0.387	0.398	0.019	1.16	0.460	146
Left Tilt	standard	off	802.11n HT40	98.0%	159/5795	12.00	11.46	0.392	0.397	0.183	1.16	0.459	/
Right Cheek	standard	off	802.11n HT40	98.0%	159/5795	12.00	11.46	0.198	0.201	0.090	1.16	0.232	/
Right Tilt	standard	off	802.11n HT40	98.0%	159/5795	12.00	11.46	0.194	0.197	0.076	1.16	0.228	/
Left Tilt	Battery2	off	802.11n HT40	98.0%	159/5795	12.00	11.46	0.380	0.386	0.110	1.16	0.446	/
Body-worn SAR (Distance 15mm)													
Back Side	standard	off	802.11a	99.2%	157/5785	16.00	15.90	0.076	0.059	-0.198	0.10	0.006	147
Front Side	standard	off	802.11a	99.2%	157/5785	16.00	15.90	0.001	0.001	0.000	1.03	0.001	/
Back Side	Battery2	off	802.11a	99.2%	157/5785	16.00	15.90	0.062	0.053	0.118	0.10	0.005	/
Hotspot SAR(Distance 10mm)													
Back Side	standard	off	802.11a	99.2%	157/5785	16.00	15.90	0.083	0.087	0.101	1.03	0.090	/
Front Side	standard	off	802.11a	99.2%	157/5785	16.00	15.90	0.057	0.061	0.020	1.03	0.063	/
Left Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Right Edge	standard	off	802.11a	99.2%	157/5785	16.00	15.90	0.034	0.043	0.010	1.03	0.044	/
Top Edge	standard	off	802.11a	99.2%	157/5785	16.00	15.90	0.141	0.139	0.100	1.03	0.143	148
Bottom Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Top Edge	Battery2	off	802.11a	99.2%	157/5785	16.00	15.90	0.103	0.098	-0.035	1.03	0.101	/

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

Table 47: Wi-Fi 5G,U-NII-1 (Ant 2)

Test Position	Cover Type	Sensor	Mode	Duty Cycle	Channel/Frequency (MHz)	Tune-up dBm	Measured power (dBm)	Limit of SAR 1.6 W/kg (mW/g)					Plot No.
								Area Scan SAR 1g	Zoom Scan SAR 1g	Power Drift (dB)	Scaling Factor	Report SAR 1g	
Hotspot SAR(Distance 10mm)													
Back Side	Standard	off	802.11a	99.2%	44/5220	15.50	14.70	0.092	0.093	0.120	1.21	0.113	149
Front Side	Standard	off	802.11a	99.2%	44/5220	15.50	14.70	0.001	0.001	0.000	1.21	0.001	/
Left Edge	Standard	off	802.11a	99.2%	44/5220	15.50	14.70	0.048	0.047	0.020	1.21	0.057	/
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
Top Edge	Standard	off	802.11a	99.2%	44/5220	15.50	14.70	0.063	0.072	0.039	1.21	0.087	/
Bottom Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Back Side	Battery2	off	802.11a	99.2%	44/5220	15.50	14.70	0.078	0.080	0.034	1.21	0.097	/

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

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

Table 48: Wi-Fi 5G U-NII-2A (Ant 2)

Per 248227, for band U-NII-1 and U-NII-2A, when the same maximum output power is specified for both bands, begin SAR measurement in U-NII-2A band by applying the OFDM SAR requirements. If the highest reported SAR for a test configuration is ≤ 1.2 W/kg, SAR is not required for U-NII-1 band for that configuration (802.11 mode and exposure condition); otherwise, each band is tested independently for SAR.

Test Position	Cover Type	Sensor	Mode	Duty Cycle	Channel/Frequency (MHz)	Tune-up (dBm)	Measured power (dBm)	Limit of SAR 1.6 W/kg (mW/g)					Plot No.
								Area Scan SAR 1g	Zoom Scan SAR 1g	Power Drift (dB)	Scaling Factor	Report SAR 1g	
Head SAR													
Left Cheek	standard	off	802.11n HT40	98.0%	54/5270	12.00	11.77	0.051	0.054	0.040	1.08	0.058	/
Left Tilt	standard	off	802.11n HT40	98.0%	54/5270	12.00	11.77	0.052	0.049	0.134	1.08	0.052	/
Right Cheek	standard	off	802.11n HT40	98.0%	54/5270	12.00	11.77	0.096	0.085	0.133	1.08	0.091	150
Right Tilt	standard	off	802.11n HT40	98.0%	54/5270	12.00	11.77	0.063	0.054	0.199	1.08	0.058	/
Right Cheek	Battery2	off	802.11n HT40	98.0%	54/5270	12.00	11.77	0.090	0.082	0.126	1.08	0.088	/
Body-worn SAR (Distance 15mm)													
Back Side	standard	off	802.11a	99.2%	60/5300	15.50	15.09	0.041	0.047	0.034	1.11	0.052	151
Front Side	standard	off	802.11a	99.2%	60/5300	15.50	15.09	0.001	0.001	0.000	1.11	0.001	/
Back Side	Battery2	off	802.11a	99.2%	60/5300	15.50	15.09	0.020	0.028	0.016	1.11	0.031	/
Test Position	Cover Type	Sensor	Mode	Duty Cycle	Channel/Frequency (MHz)	Tune-up (dBm)	Measured power (dBm)	Limit of SAR 4.0 W/kg (mW/g)					Plot No.
								Area Scan SAR 10g	Zoom Scan SAR 10g	Power Drift (dB)	Scaling Factor	Report SAR 10g	
Product Specific 10-g SAR (Distance 0mm)													
Back Side	standard	off	802.11a	99.2%	60/5300	15.50	15.09	0.389	0.360	0.025	1.11	0.399	152
Front Side	standard	off	802.11a	99.2%	60/5300	15.50	15.09	0.108	0.093	-0.042	1.11	0.103	/
Left Edge	standard	off	802.11a	99.2%	60/5300	15.50	15.09	0.153	0.175	0.036	1.11	0.194	/
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
Top Edge	standard	off	802.11a	99.2%	60/5300	15.50	15.09	0.341	0.329	0.020	1.11	0.364	/
Bottom Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Back Side	Battery2	off	802.11a	99.2%	60/5300	15.50	15.09	0.341	0.330	0.065	1.11	0.366	/

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

Table 49: Wi-Fi 5G U-NII-2C (Ant 2)

Test Position	Cover Type	Sensor	Mode	Duty Cycle	Channel/Frequency (MHz)	Tune-up (dBm)	Measured power (dBm)	Limit of SAR 1.6 W/kg (mW/g)					Plot No.
								Area Scan SAR 1g	Zoom Scan SAR 1g	Power Drift (dB)	Scaling Factor	Report SAR 1g	
Head SAR													
Left Cheek	standard	off	802.11n HT40	98.0%	118/5590	12.00	11.89	0.107	0.112	0.110	1.05	0.117	/
Left Tilt	standard	off	802.11n HT40	98.0%	118/5590	12.00	11.89	0.101	0.104	0.090	1.05	0.109	/
Right Cheek	standard	off	802.11n HT40	98.0%	118/5590	12.00	11.89	0.124	0.127	0.030	1.05	0.133	/
Right Tilt	standard	off	802.11n HT40	98.0%	118/5590	12.00	11.89	0.137	0.139	0.140	1.05	0.146	153
Right Cheek	Battery2	off	802.11n HT40	98.0%	118/5590	12.00	11.89	0.132	0.138	0.054	1.05	0.145	/
Body-worn SAR (Distance 15mm)													
Back Side	standard	off	802.11a	99.2%	136/5680	15.50	14.86	0.034	0.037	-0.120	1.17	0.043	154
Front Side	standard	off	802.11a	99.2%	136/5680	15.50	14.86	0.001	0.001	0.000	1.17	0.001	/
Back Side	Battery2	off	802.11a	99.2%	136/5680	15.50	14.86	0.033	0.035	0.150	1.17	0.041	/
Test Position	Cover Type	Sensor	Mode	Duty Cycle	Channel/Frequency (MHz)	Tune-up (dBm)	Measured power (dBm)	Limit of SAR 4.0 W/kg (mW/g)					Plot No.
								Area Scan SAR 10g	Zoom Scan SAR 10g	Power Drift (dB)	Scaling Factor	Report SAR 10g	
Product Specific 10-g SAR (Distance 0mm)													
Back Side	standard	off	802.11a	99.2%	136/5680	15.50	14.86	0.353	0.387	-0.042	1.17	0.452	155
Front Side	standard	off	802.11a	99.2%	136/5680	15.50	14.86	0.055	0.063	-0.018	1.17	0.074	/
Left Edge	standard	off	802.11a	99.2%	136/5680	15.50	14.86	0.125	0.133	0.067	1.17	0.155	/
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
Top Edge	standard	off	802.11a	99.2%	136/5680	15.50	14.86	0.089	0.081	-0.021	1.17	0.095	/
Bottom Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Back Side	Battery2	off	802.11a	99.2%	136/5680	15.50	14.86	0.337	0.372	-0.062	1.17	0.435	/

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

Table 50: Wi-Fi 5G U-NII-3 (Ant 2)

Test Position	Cover Type	Sensor	Mode	Duty Cycle	Channel/Frequency(MHz)	Tune-up dBm)	Measured power (dBm)	Limit of SAR 1.6 W/kg (mW/g)					Plot No.
								Area Scan SAR 1g	Zoom Scan SAR 1g	Power Drift (dB)	Scaling Factor	Report SAR 1g	
Head SAR													
Left Cheek	standard	off	802.11n HT40	98.0%	159/5795	12.00	11.36	0.098	0.099	0.011	1.18	0.117	156
Left Tilt	standard	off	802.11n HT40	98.0%	159/5795	12.00	11.36	0.086	0.087	0.012	1.18	0.103	/
Right Cheek	standard	off	802.11n HT40	98.0%	159/5795	12.00	11.36	0.094	0.096	0.090	1.18	0.114	/
Right Tilt	standard	off	802.11n HT40	98.0%	159/5795	12.00	11.36	0.093	0.094	0.080	1.18	0.111	/
Left Cheek	Battery2	off	802.11n HT40	98.0%	159/5795	12.00	11.36	0.077	0.080	-0.043	1.18	0.095	/
Body-worn SAR (Distance 15mm)													
Back Side	standard	off	802.11a	99.2%	161/5800	15.50	15.28	0.021	0.022	0.010	1.06	0.023	157
Front Side	standard	off	802.11a	99.2%	161/5800	15.50	15.28	0.001	0.001	0.000	1.06	0.001	/
Back Side	Battery2	off	802.11a	99.2%	161/5800	15.50	15.28	0.019	0.020	0.030	1.06	0.021	/
Hotspot SAR(Distance 10mm)													
Back Side	standard	off	802.11a	99.2%	161/5800	15.50	15.28	0.188	0.179	0.152	1.06	0.190	158
Front Side	standard	off	802.11a	99.2%	161/5800	15.50	15.28	0.001	0.001	0.000	1.06	0.001	/
Left Edge	standard	off	802.11a	99.2%	161/5800	15.50	15.28	0.039	0.038	0.020	1.06	0.040	/
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
Top Edge	standard	off	802.11a	99.2%	161/5800	15.50	15.28	0.001	0.001	0.000	1.06	0.001	/
Bottom Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Back Side	Battery2	off	802.11a	99.2%	161/5800	15.50	15.28	0.152	0.139	0.068	1.06	0.147	/
Note: 1. The value with blue color is the maximum SAR Value of each test band.													

Table 51: Bluetooth

Test Position	Cover Type	Mode	Duty Cycle	Channel/Frequency (MHz)	Tune-up dBm	Measured power (dBm)	Limit of SAR 1.6 W/kg (mW/g)				Plot No.
							Measured SAR1g	Power Drift (dB)	Scaling Factor	Report SAR 1g	
Head SAR(normal)											
Left Cheek	standard	DH5	76.7%	39/2441	11.00	10.20	0.119	0.087	1.57	0.187	/
Left Tilt	standard	DH5	76.7%	39/2441	11.00	10.20	0.123	0.051	1.57	0.193	159
Right Cheek	standard	DH5	76.7%	39/2441	11.00	10.20	0.054	0.045	1.57	0.085	/
Right Tilt	standard	DH5	76.7%	39/2441	11.00	10.20	0.049	0.030	1.57	0.077	/
Left Tilt	Battery 2	DH5	76.7%	39/2441	11.00	10.20	0.108	-0.024	1.57	0.169	/
Body-worn SAR (Distance 15mm)(normal)											
Back Side	standard	DH5	76.7%	39/2441	11.00	10.20	0.001	0.080	1.57	0.002	/
Front Side	standard	DH5	76.7%	39/2441	11.00	10.20	0.001	0.030	1.57	0.002	160
Back Side	Battery 2	DH5	76.7%	39/2441	11.00	10.20	0.000	-0.087	1.57	0.000	/
Body-worn SAR (Distance 15mm)(high)											
Back Side	standard	DH5	76.7%	0/2402	18.30	16.90	0.031	0.030	1.80	0.056	/
Front Side	standard	DH5	76.7%	0/2402	18.30	16.90	0.035	0.052	1.80	0.063	161
Front Side	Battery 2	DH5	76.7%	0/2402	18.30	16.90	0.022	0.051	1.80	0.040	/
Hotspot SAR(Distance 10mm)(normal)											
Back Side	standard	DH5	76.7%	39/2441	11.00	10.20	0.009	0.032	1.57	0.014	/
Front Side	standard	DH5	76.7%	39/2441	11.00	10.20	0.012	0.021	1.57	0.019	/
Left Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Right Edge	standard	DH5	76.7%	39/2441	11.00	10.20	0.034	0.020	1.57	0.053	/
Top Edge	standard	DH5	76.7%	39/2441	11.00	10.20	0.057	0.070	1.57	0.089	162
Bottom Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Top Edge	Battery 2	DH5	76.7%	39/2441	11.00	10.20	0.036	0.018	1.57	0.057	/
Hotspot SAR(Distance 10mm)(high)											
Back Side	standard	DH5	76.7%	0/2402	18.30	16.90	0.092	0.032	1.80	0.166	/
Front Side	standard	DH5	76.7%	0/2402	18.30	16.90	0.084	0.021	1.80	0.151	/
Left Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Right Edge	standard	DH5	76.7%	0/2402	18.30	16.90	0.034	0.020	1.80	0.061	/
Top Edge	standard	DH5	76.7%	0/2402	18.30	16.90	0.217	0.070	1.80	0.391	163
Bottom Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Top Edge	Battery 2	DH5	76.7%	0/2402	18.30	16.90	0.189	-0.027	1.80	0.340	/
Test Position	Cover Type	Mode	Duty Cycle	Channel/Frequency (MHz)	Tune-up dBm	Measured power (dBm)	Limit of SAR 1.6 W/kg (mW/g)				Plot No.
							Measured SAR10g	Power Drift (dB)	Scaling Factor	Report SAR 10g	
Product Specific 10-g SAR (Distance 0mm) (high)											
Back Side	standard	DH5	76.7%	0/2402	18.30	16.90	0.161	0.012	1.80	0.290	/



Front Side	standard	DH5	76.7%	0/2402	18.30	16.90	0.148	-0.045	1.80	0.266	/
Left Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Right Edge	standard	DH5	76.7%	0/2402	18.30	16.90	0.063	-0.017	1.80	0.113	/
Top Edge	standard	DH5	76.7%	0/2402	18.30	16.90	0.309	0.078	1.80	0.556	164
Bottom Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Top Edge	Battery 2	DH5	76.7%	0/2402	18.30	16.90	0.235	0.150	1.80	0.423	/

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

10.4 Simultaneous Transmission Analysis

The Simultaneous Transmission Possibilities of this device are as below:

Table: Simultaneous Transmission Possibilities with BT Power Level B

NO.	Simultaneous TX Combination	Head	Body-worn	Hotspot	Product Specific 10-g SAR
1	GSM Voice(Ant1) + Bluetooth	Yes	Yes	N/A	Yes
2	GSM DATA(Ant 1) + Bluetooth	N/A	Yes	Yes	Yes
3	GSM Voice(Ant 2) + Bluetooth	Yes	Yes	N/A	Yes
4	GSM DATA (Ant 2)+ Bluetooth	N/A	Yes	Yes	Yes
5	UMTS (Ant 1) + Bluetooth	Yes	Yes	Yes	Yes
6	UMTS (Ant 1) + Bluetooth	Yes	Yes	Yes	Yes
7	LTE(Ant 1) + Bluetooth	Yes	Yes	Yes	Yes
8	LTE (Ant 2) + Bluetooth	Yes	Yes	Yes	Yes
9	GSM Voice(Ant 1) + Wi-Fi 2.4G (Ant 1)/ Wi-Fi 2.4G (Ant 2)/ Wi- Fi 2.4G MIMO	Yes	Yes	N/A	Yes
10	GSM DATA(Ant 1) + Wi-Fi 2.4G (Ant 1)/ Wi-Fi 2.4G (Ant 2)/ Wi-Fi 2.4G MIMO	N/A	Yes	Yes	Yes
11	GSM Voice(Ant 2) + Wi-Fi 2.4G (Ant 1)/ Wi-Fi 2.4G (Ant 2)/ Wi-Fi 2.4G MIMO	Yes	Yes	N/A	Yes
12	GSM DATA (Ant 2)+ Wi-Fi 2.4G (Ant 1)/ Wi-Fi 2.4G (Ant 2)/ Wi-Fi 2.4G MIMO	N/A	Yes	Yes	Yes
13	UMTS (Ant 1) + Wi-Fi 2.4G (Ant 1)/ Wi-Fi 2.4G (Ant 2)/ Wi-Fi 2.4G MIMO	Yes	Yes	Yes	Yes
14	UMTS (Ant 2) + Wi-Fi 2.4G (Ant 1)/ Wi-Fi 2.4G (Ant 2)/ Wi-Fi 2.4G MIMO	Yes	Yes	Yes	Yes
15	LTE (Ant 1) + Wi-Fi 2.4G (Ant 1)/ Wi-Fi 2.4G (Ant 2)/ Wi-Fi 2.4G MIMO	Yes	Yes	Yes	Yes
16	LTE (Ant 2) + Wi-Fi 2.4G (Ant 1)/ Wi-Fi 2.4G (Ant 2)/ Wi-Fi 2.4G MIMO	Yes	Yes	Yes	Yes
17	GSM Voice(Ant 1) + Wi-Fi 5G (Ant 1)/ Wi-Fi 5G (Ant 2)/ Wi-Fi 5G MIMO	Yes	Yes	N/A	Yes
18	GSM DATA(Ant 1) + Wi-Fi 5G (Ant 1)/ Wi-Fi 5G (Ant 2)/ Wi- Fi 5G MIMO	N/A	Yes	Yes	Yes
19	GSM Voice(Ant 2) + Wi-Fi 5G (Ant 1)/ Wi-Fi 5G (Ant 2)/ Wi-Fi 5G MIMO	Yes	Yes	N/A	Yes
20	GSM DATA(Ant 2) + Wi-Fi 5G (Ant 1)/ Wi-Fi 5G (Ant 2)/ Wi-Fi 5G MIMO	N/A	Yes	Yes	Yes
21	UMTS (Ant 1) + Wi-Fi 5G (Ant 1)/ Wi-Fi 5G (Ant 2)/ Wi-Fi 5G MIMO	Yes	Yes	Yes	Yes
22	UMTS (Ant 2) + Wi-Fi 5G (Ant 1)/ Wi-Fi 5G (Ant 2)/ Wi-Fi 5G MIMO	Yes	Yes	Yes	Yes

23	LTE (Ant 1) + Wi-Fi 5G (Ant 1)/ Wi-Fi 5G (Ant 2)/ Wi-Fi 5G MIMO	Yes	Yes	Yes	Yes
24	LTE (Ant 2) + Wi-Fi 5G (Ant 1)/ Wi-Fi 5G (Ant 2)/ Wi-Fi 5G MIMO	Yes	Yes	Yes	Yes
25	GSM Voice(Ant 1) + Wi-Fi 2.4G (Ant 2) + Wi-Fi 5G (Ant 1)	Yes	Yes	N/A	Yes
26	GSM DATA(Ant 1) + Wi-Fi 2.4G (Ant 2) + Wi-Fi 5G (Ant 1)	N/A	Yes	Yes	Yes
27	GSM Voice(Ant 2) + Wi-Fi 2.4G (Ant 2) + Wi-Fi 5G (Ant 1)	Yes	Yes	N/A	Yes
28	GSM DATA(Ant 2) + Wi-Fi 2.4G (Ant 2) + Wi-Fi 5G (Ant 1)	N/A	Yes	Yes	Yes
29	UMTS (Ant 1) + Wi-Fi 2.4G (Ant 2) + Wi-Fi 5G (Ant 1)	Yes	Yes	Yes	Yes
30	UMTS (Ant 2) + Wi-Fi 2.4G (Ant 2) + Wi-Fi 5G (Ant 1)	Yes	Yes	Yes	Yes
31	LTE (Ant 1) + Wi-Fi 2.4G (Ant 2) + Wi-Fi 5G (Ant 1)	Yes	Yes	Yes	Yes
32	LTE (Ant 2) + Wi-Fi 2.4G (Ant 2) + Wi-Fi 5G (Ant 1)	Yes	Yes	Yes	Yes
33	GSM Voice(Ant 1) + Bluetooth+ Wi-Fi 5G (Ant1/ Ant2/ MIMO)	Yes	Yes	N/A	Yes
34	GSM DATA(Ant 1) + Bluetooth+ Wi-Fi 5G (Ant1/ Ant2/ MIMO)	N/A	Yes	Yes	Yes
35	GSM Voice(Ant 2) + Bluetooth+ Wi-Fi 5G (Ant1/ Ant2/ MIMO)	Yes	Yes	N/A	Yes
36	GSM DATA (Ant 2)+ Bluetooth+ Wi-Fi 5G (Ant1/ Ant2/ MIMO)	N/A	Yes	Yes	Yes
37	UMTS (Ant 1) + Bluetooth+ Wi-Fi 5G (Ant1/ Ant2/ MIMO)	Yes	Yes	Yes	Yes
38	UMTS (Ant 2) + Bluetooth+ Wi-Fi 5G (Ant1/ Ant2/ MIMO)	Yes	Yes	Yes	Yes
39	LTE (Ant 1) + Bluetooth+ Wi-Fi 5G (Ant1/ Ant2/ MIMO)	Yes	Yes	Yes	Yes
40	LTE (Ant 2) + Bluetooth+ Wi-Fi 5G (Ant1/ Ant2/ MIMO)	Yes	Yes	Yes	Yes
41	GSM Voice(Ant 1) + Bluetooth+ Wi-Fi 2.4G (Ant2)	Yes	Yes	N/A	Yes
42	GSM DATA(Ant 1) + Bluetooth+ Wi-Fi 2.4G (Ant2)	N/A	Yes	Yes	Yes
43	GSM Voice(Ant 2) + Bluetooth+ Wi-Fi 2.4G (Ant2)	Yes	Yes	N/A	Yes
44	GSM DATA (Ant 2)+ Bluetooth+ Wi-Fi 2.4G (Ant2)	N/A	Yes	Yes	Yes

45	UMTS (Ant 1) + Bluetooth+ Wi-Fi 2.4G (Ant2)	Yes	Yes	Yes	Yes
46	UMTS (Ant 2) + Bluetooth+Wi-Fi 2.4G (Ant2)	Yes	Yes	Yes	Yes
47	LTE (Ant 1) + Bluetooth+ Wi-Fi 2.4G (Ant2)	Yes	Yes	Yes	Yes
48	LTE (Ant 2) + Bluetooth+ Wi-Fi 5G Wi-Fi 2.4G (Ant2)	Yes	Yes	Yes	Yes
49	GSM DATA(Ant 1) + Wi-Fi 2.4G (Ant 2) + Wi-Fi 5G (Ant 1)+ Bluetooth	Yes	Yes	N/A	Yes
50	GSM DATA(Ant 2) + Wi-Fi 2.4G (Ant 2) + Wi-Fi 5G (Ant 1)+Bluetooth	N/A	Yes	Yes	Yes
51	GSM Voice(Ant 1) + Wi-Fi 2.4G (Ant 2) + Wi-Fi 5G (Ant 1)+ Bluetooth	Yes	Yes	N/A	Yes
52	GSM Voice (Ant 2) + Wi-Fi 2.4G (Ant 2) + Wi-Fi 5G (Ant 1)+Bluetooth	N/A	Yes	Yes	Yes
53	UMTS (Ant 1) + Wi-Fi 2.4G (Ant 2) + Wi-Fi 5G (Ant 1)+Bluetooth	Yes	Yes	Yes	Yes
54	UMTS (Ant 2) + Wi-Fi 2.4G (Ant 2) + Wi-Fi 5G (Ant 1)+Bluetooth	Yes	Yes	Yes	Yes
55	LTE (Ant 1) + Wi-Fi 2.4G (Ant 2) + Wi-Fi 5G (Ant 1)+Bluetooth	Yes	Yes	Yes	Yes
56	LTE (Ant 2) + Wi-Fi 2.4G (Ant 2) + Wi-Fi 5G (Ant 1)+Bluetooth	Yes	Yes	Yes	Yes

Note:

- 1) Wi-Fi 2.4G Ant.2 can transmit simultaneously with Bluetooth and Ant.1 can't transmit simultaneously with Bluetooth.
- 2) Wi-Fi 5G Ant.1 can transmit simultaneously with Bluetooth and Ant.2 also can transmit simultaneously with Bluetooth.
- 3) Wi-Fi 2.4G has two TX antennas. Wi-Fi 2.4G 802.11g/n support 2*2 CDD/MIMO function.
- 4) Wi-Fi 5G has two TX antennas. Wi-Fi 5G 802.11 a/n/ac support 2*2 CDD/MIMO function.
- 5) Wi-Fi 2.4G& Wi-Fi 5G can't work at same mode, but they can transmit simultaneously at different modes (Wi-Fi station/P-to-P) by using different Wi-Fi antennas. Only Wi-Fi 2.4G Ant2 station mode and Wi-Fi 5G Ant1 P-to-P mode or Wi-Fi 2.4G Ant2 P-to-P mode and Wi-Fi 5G Ant1 station mode can transmit simultaneously.
- 6) The Main Antenna (Ant1) and Second Antenna (Ant2) can't transmit simultaneously.
- 7) When 2.4G hotspot +Bluetooth off ,it works on ant1. When 2.4G hotspot +Bluetooth on, 2.4G hotspot works on ant2 and Bluetooth works on ant1.

The simultaneous transmission possibilities for BT at lower power level B and high power level A are different. I The simultaneous transmission possibilities for BT high power level A is as below table:

Table: Simultaneous Transmission Possibilities with BT Power Level A

NO.	Simultaneous TX Combination	Head	Body-worn	Hotspot	Product Specific 10-g SAR
1	GSM Voice(Ant1) + Bluetooth	N/A	Yes	N/A	Yes
2	GSM DATA(Ant 1) + Bluetooth	N/A	Yes	Yes	Yes
3	GSM Voice(Ant 2) + Bluetooth	N/A	Yes	N/A	Yes
4	GSM DATA (Ant 2)+ Bluetooth	N/A	Yes	Yes	Yes
5	UMTS (Ant 1) + Bluetooth	N/A	Yes	Yes	Yes
6	UMTS (Ant 1) + Bluetooth	N/A	Yes	Yes	Yes
7	LTE(Ant 1) + Bluetooth	N/A	Yes	Yes	Yes
8	LTE (Ant 2) + Bluetooth	N/A	Yes	Yes	Yes
9	GSM Voice(Ant 1) + Bluetooth+ Wi-Fi 2.4G (Ant 2)	N/A	Yes	N/A	Yes
10	GSM DATA(Ant 1) + Bluetooth+ Wi-Fi 2.4G (Ant 2)	N/A	Yes	Yes	Yes
11	GSM Voice(Ant 2) + Bluetooth+ Wi-Fi 2.4G (Ant 2)	N/A	Yes	N/A	Yes
12	GSM DATA(Ant 2) + Bluetooth+ Wi-Fi 2.4G (Ant 2)	N/A	Yes	Yes	Yes
13	UMTS (Ant 1) + Bluetooth+ Wi-Fi 2.4G (Ant 2)	N/A	Yes	Yes	Yes
14	UMTS (Ant 1) + Bluetooth+ Wi-Fi 2.4G (Ant 2)	N/A	Yes	Yes	Yes
15	LTE(Ant 1) + Bluetooth+ Wi-Fi 2.4G (Ant 2)	N/A	Yes	Yes	Yes
16	LTE (Ant 2) + Bluetooth+ Wi-Fi 2.4G (Ant 2)	N/A	Yes	Yes	Yes
17	GSM Voice(Ant 1) + Bluetooth+ Wi-Fi 5G (Ant 2)	N/A	Yes	N/A	Yes
18	GSM DATA(Ant 1) + Bluetooth+ Wi-Fi 5G (Ant 2)	N/A	Yes	Yes	Yes
19	GSM Voice(Ant 2) + Bluetooth+ Wi-Fi 5G (Ant 2)	N/A	Yes	N/A	Yes
20	GSM DATA(Ant 2) + Bluetooth+ Wi-Fi 5G (Ant 2)	N/A	Yes	Yes	Yes
21	UMTS (Ant 1) + Bluetooth+ Wi-Fi 5G (Ant 2)	N/A	Yes	Yes	Yes
22	UMTS (Ant 1) + Bluetooth+ Wi-Fi 5G (Ant 2)	N/A	Yes	Yes	Yes
23	LTE(Ant 1) + Bluetooth+ Wi-Fi 5G (Ant 2)	N/A	Yes	Yes	Yes
24	LTE (Ant 2) + Bluetooth+ Wi-Fi 5G (Ant 2)	N/A	Yes	Yes	Yes

Note:

- 1) When BT is in high power level A, BT and Wi-Fi 5G Ant. 1(Core0)/ Wi-Fi 5G MIMO cannot transmit simultaneously because BT occupies Wi-Fi 5G Ant. 1 (Core0) 's RF channel. They are time division multiplexing.
- 2) When Wi-Fi 2 4G and 5G are both on at the same time, BT can only work at power B. BT High Power A will be limited by design.
- 3) Ant 1=Wi-Fi Core 0/ BT; Ant 2 = Wi-Fi Core 1.

General Note:

1. The Scaled SAR summation is calculated based on the same configuration and test position.
2. Per KDB 447498 D01, simultaneous transmission SAR is compliant if,
 - i) Scalar SAR summation $< 1.6\text{W/kg}$, simultaneously transmission SAR measurement is not necessary.
 - ii) $\text{SPLSR} = (\text{SAR1} + \text{SAR2})^{1.5} / (\text{min. separation distance, mm})$, and the peak separation distance is determined from the square root of $[(x1-x2)^2 + (y1-y2)^2 + (z1-z2)^2]$, where $(x1, y1, z1)$ and $(x2, y2, z2)$ are the coordinates of the extrapolated peak SAR locations in the zoom scan.
 - iii) If $\text{SPLSR} \leq 0.04$, simultaneously transmission SAR measurement is not necessary.

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

Test Position		Main antenna														Main antenna Max SAR		
		GSM 850	GSM 1900	UMTS Band II	UMTS Band IV	UMTS Band V	LTE Band 2	LTE Band 4	LTE Band 5	LTE Band 7	LTE Band 12	LTE Band 17	LTE Band 26	LTE Band 38	LTE Band 41		LTE Band 66	
Head	Left cheek	0.091	0.072	0.216	0.198	0.138	0.149	0.145	0.131	0.158	0.103	0.120	0.108	0.051	0.041	0.123	0.216	
	Left tilt	0.044	0.048	0.139	0.087	0.072	0.092	0.063	0.069	0.115	0.055	0.058	0.056	0.043	0.039	0.080	0.139	
	Right cheek	0.131	0.077	0.264	0.196	0.189	0.168	0.084	0.178	0.215	0.130	0.145	0.161	0.073	0.075	0.151	0.264	
	Right tilt	0.044	0.041	0.147	0.108	0.064	0.099	0.066	0.085	0.031	0.050	0.065	0.059	0.022	0.026	0.063	0.147	
Body Worn	Back side	0.174	0.151	0.510	0.413	0.259	0.385	0.282	0.241	0.443	0.273	0.210	0.256	0.246	0.177	0.223	0.510	
	Front side	0.138	0.111	0.411	0.377	0.199	0.295	0.252	0.205	0.286	0.251	0.165	0.193	0.190	0.126	0.231	0.411	
Hotspot	Back side	0.245	0.265	0.285	0.242	0.469	0.389	0.214	0.413	0.310	0.366	0.307	0.414	0.229	0.260	0.210	0.469	
	Front side	0.211	0.181	0.237	0.163	0.354	0.363	0.262	0.337	0.229	0.298	0.244	0.276	0.180	0.201	0.197	0.363	
	Left side	0.209	0.069	0.121	0.090	0.364	0.097	0.089	0.150	0.080	0.086	0.133	0.119	0.086	0.095	0.098	0.364	
	Right side	0.140	0.111	0.110	0.084	0.199	0.138	0.123	0.146	0.112	0.104	0.122	0.104	0.087	0.099	0.095	0.199	
	Top 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	0
	Bottom side	0.179	0.386	0.493	0.400	0.260	0.507	0.481	0.262	0.469	0.130	0.105	0.212	0.268	0.432	0.384	0.507	

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

Test Position		Second antenna														Second antenna Max SAR		
		GSM 850	GSM 1900	UMTS Band II	UMTS Band IV	UMTS Band V	LTE Band 2	LTE Band 4	LTE Band 5	LTE Band 7	LTE Band 12	LTE Band 17	LTE Band 26	LTE Band 38	LTE Band 41		LTE Band 66	
Head	Left cheek	0.534	0.224	0.419	0.475	0.414	0.348	0.338	0.379	0.381	0.347	0.424	0.429	0.250	0.277	0.294	0.534	
	Left tilt	0.468	0.299	0.708	0.734	0.413	0.377	0.375	0.324	0.436	0.285	0.376	0.352	0.205	0.261	0.384	0.734	
	Right cheek	0.461	0.323	0.524	0.532	0.464	0.488	0.459	0.374	0.667	0.478	0.564	0.453	0.359	0.395	0.343	0.667	
	Right tilt	0.493	0.492	0.620	0.637	0.525	0.617	0.549	0.337	0.755	0.479	0.546	0.386	0.350	0.433	0.478	0.755	
Body Worn	Back side	0.163	0.073	0.392	0.305	0.265	0.252	0.177	0.201	0.307	0.151	0.134	0.222	0.068	0.178	0.159	0.392	
	Front side	0.178	0.078	0.385	0.358	0.314	0.234	0.199	0.167	0.132	0.167	0.132	0.236	0.055	0.099	0.175	0.385	
Hotspot	Back side	0.385	0.302	0.344	0.249	0.150	0.272	0.155	0.308	0.469	0.333	0.372	0.313	0.249	0.373	0.126	0.469	
	Front side	0.390	0.326	0.342	0.275	0.598	0.252	0.187	0.355	0.191	0.395	0.291	0.329	0.149	0.171	0.140	0.598	
	Left side	0.119	0.050	0.050	0.060	0.050	0.089	0.070	0.079	0.095	0.119	0.107	0.098	0.088	0.114	0.103	0.119	
	Right side	0.021	0.056	0.075	0.033	0.034	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.075
	Top side	0.235	0.664	0.739	0.525	0.084	0.524	0.288	0.208	0.414	0.228	0.202	0.249	0.269	0.367	0.277	0.739	
	Bottom 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	0

SAR Simultaneous Tx Combination of Main antenna with WiFi/BT Scenario (BT: Power level B)

Test Position	Main antenna MaxSAR	WiFi 2.4G	WiFi 2.4G	WiFi 2.4G	WiFi 5G	WiFi 5G	WiFi 5G	BT	Simultaneously Transmission SAR							
		Ant1 (Core0)	Ant2 (Core1)	MIMO	Ant1 (Core0)	Ant2 (Core1)	MIMO	Power Level B	1+8	1+max (2,3,4)	1+max (5,6,7)	1+3+5	1+max (5,6,7)+8	1+3+8	1+3+5+8	
		1	2	3	4	5	6	7	8	1+8	1+max (2,3,4)	1+max (5,6,7)	1+3+5	1+max (5,6,7)+8	1+3+8	1+3+5+8
Head	Left cheek	0.216	0.283	0.098	0.404	0.442	0.117	0.559	0.187	0.403	0.620	0.775	0.756	0.962	0.501	0.943
	Left tilt	0.139	0.312	0.018	0.369	0.521	0.109	0.630	0.193	0.332	0.508	0.769	0.678	0.962	0.350	0.871
	Right cheek	0.264	0.126	0.016	0.151	0.201	0.133	0.334	0.085	0.349	0.415	0.598	0.481	0.683	0.365	0.566
	Right tilt	0.147	0.159	0.015	0.171	0.224	0.146	0.370	0.077	0.224	0.318	0.517	0.386	0.594	0.239	0.463
Body Worn	Back side	0.510	0.121	0.074	0.142	0.096	0.052	0.148	0.002	0.512	0.652	0.658	0.680	0.660	0.586	0.682
	Front side	0.411	0.074	0.014	0.109	0.001	0.001	0.002	0.002	0.413	0.520	0.413	0.426	0.415	0.427	0.428
Hotspot	Back side	0.469	0.195	0.215	0	0.090	0.190	0.280	0.014	0.483	0.684	0.749	0.774	0.763	0.698	0.788
	Front side	0.363	0.213	0.007	0	0.063	0.001	0.064	0.019	0.382	0.576	0.427	0.433	0.446	0.389	0.452
	Left side	0.364	0	0.085	0	0	0.057	0.057	0	0.364	0.449	0.421	0.449	0.421	0.449	0.449
	Right side	0.199	0.178	0	0	0.108	0	0.108	0.053	0.252	0.377	0.307	0.307	0.360	0.252	0.360
	Top side	0	0.288	0.008	0	0.259	0.087	0.346	0.089	0.089	0.288	0.346	0.267	0.435	0.097	0.356
	Bottom side	0.507	0	0	0	0	0	0	0	0.507	0.507	0.507	0.507	0.507	0.507	0.507
Product Specific 10-g	Back side	0	0	0	0.858	0.500	0.452	0.952	0	0	0.858	0.952	0.500	0.952	0	0.500
	Front side	0	0	0	0.465	0.443	0.103	0.546	0	0	0.465	0.546	0.443	0.546	0	0.443
	Left side	0	0	0	0.149	0.000	0.194	0.194	0	0	0.149	0.194	0	0.194	0	0
	Right side	0	0	0	0.462	0.300	0.000	0.3	0	0	0.462	0.300	0.300	0.300	0	0.300
	Top side	0	0	0	1.117	0.774	0.364	1.138	0	0	1.117	1.138	0.774	1.138	0	0.774
	Bottom side	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

SAR Simultaneous Tx Combination of Second antenna with WiFi/BT Scenario (BT: Power level B)

Test Position	Second antenna MaxSAR	WiFi 2.4G Ant1 (Core0)	WiFi 2.4G Ant2 (Core1)	WiFi 2.4G MIMO	WiFi 5G Ant1 (Core0)	WiFi 5G Ant2 (Core1)	WiFi 5G MIMO	BT Power Level B	Simultaneously Transmission SAR							
	1	2	3	4	5	6	7	8	1+8	1+max (2,3,4)	1+max (5,6,7)	1+3+5	1+max (5,6,7)+8	1+3+8	1+3+5+8	
Head	Left cheek	0.534	0.283	0.098	0.404	0.442	0.117	0.559	0.187	0.721	0.938	1.093	1.074	1.280	0.819	1.261
	Left tilt	0.734	0.312	0.018	0.369	0.521	0.109	0.630	0.193	0.927	1.103	1.364	1.273	1.557	0.945	1.466
	Right cheek	0.667	0.126	0.016	0.151	0.201	0.133	0.334	0.085	0.752	0.818	1.001	0.884	1.086	0.768	0.969
	Right tilt	0.755	0.159	0.015	0.171	0.224	0.146	0.370	0.077	0.832	0.926	1.125	0.994	1.202	0.847	1.071
Body Worn	Back side	0.392	0.121	0.074	0.142	0.096	0.052	0.148	0.002	0.394	0.534	0.540	0.562	0.542	0.468	0.564
	Front side	0.385	0.074	0.014	0.109	0.001	0.001	0.002	0.002	0.387	0.494	0.387	0.400	0.389	0.401	0.402
Hotspot	Back side	0.469	0.195	0.215	0	0.090	0.190	0.280	0.014	0.483	0.684	0.749	0.774	0.763	0.698	0.788
	Front side	0.598	0.213	0.007	0	0.063	0.001	0.064	0.019	0.617	0.811	0.662	0.668	0.681	0.624	0.687
	Left side	0.119	0	0.085	0	0	0.057	0.057	0	0.119	0.204	0.176	0.204	0.176	0.204	0.204
	Right side	0.075	0.178	0	0	0.108	0	0.108	0.053	0.128	0.253	0.183	0.183	0.236	0.128	0.236
	Top side	0.739	0.288	0.008	0	0.259	0.087	0.346	0.089	0.828	1.027	1.085	1.006	1.174	0.836	1.095
	Bottom side	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Product Specific 10-g	Back side	0	0	0	0.858	0.500	0.452	0.952	0	0	0.858	0.952	0.500	0.952	0	0.500
	Front side	0	0	0	0.465	0.443	0.103	0.546	0	0	0.465	0.546	0.443	0.546	0	0.443
	Left side	0	0	0	0.149	0.000	0.194	0.194	0	0	0.149	0.194	0	0.194	0	0
	Right side	0	0	0	0.462	0.300	0.000	0.3	0	0	0.462	0.300	0.300	0.300	0	0.300
	Top side	0	0	0	1.117	0.774	0.364	1.138	0	0	1.117	1.138	0.774	1.138	0	0.774
	Bottom side	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

SAR Simultaneous Tx Combination of Main antenna with WiFi/BT Scenario (BT: Power level A)

Test Position		Main antenna	WiFi 2.4G	WiFi 2.4G	WiFi 2.4G	WiFi 5G	WiFi 5G	WiFi	BT	Simultaneously Transmission SAR		
		MaxSAR	Ant1 (Core0)	Ant2 (Core1)	MIMO	Ant1 (Core0)	Ant2 (Core1)	5G MIMO	Power Level A	1+8	1+3+8	1+6+8
		1	2	3	4	5	6	7	8			
Body Worn	Back side	0.510	0.121	0.074	0.142	0.096	0.052	0.148	0.056	0.566	0.640	0.618
	Front side	0.411	0.074	0.014	0.109	0.001	0.001	0.002	0.063	0.474	0.488	0.475
Hotspot	Front side	0.469	0.195	0.215	0	0.090	0.190	0.280	0.166	0.635	0.850	0.825
	Back side	0.363	0.213	0.007	0	0.063	0.001	0.064	0.151	0.514	0.521	0.515
	Left side	0.364	0	0.085	0	0	0.057	0.057	0	0.364	0.449	0.421
	Right side	0.199	0.178	0	0	0.108	0	0.108	0.061	0.260	0.260	0.260
	Top side	0	0.288	0.008	0	0.259	0.087	0.346	0.391	0.391	0.399	0.478
	Bottom side	0.507	0	0	0	0	0	0	0	0.507	0.507	0.507
Product Specific 10-g	Back side	0	0	0	0.858	0.500	0.452	0.952	0.290	0.29	0.29	0.742
	Front side	0	0	0	0.465	0.443	0.103	0.546	0.266	0.266	0.266	0.369
	Left side	0	0	0	0.149	0.000	0.194	0.194	0	0	0	0.194
	Right side	0	0	0	0.462	0.300	0.000	0.3	0.113	0.113	0.113	0.113
	Top side	0	0	0	1.117	0.774	0.364	1.138	0.556	0.556	0.556	0.92
	Bottom side	0	0	0	0	0	0	0	0	0	0	0

SAR Simultaneous Tx Combination of Second antenna with WiFi/BT Scenario (BT: Power level A)

Test Position		Second antenna	WiFi 2.4G	WiFi 2.4G	WiFi 2.4G	WiFi 5G	WiFi 5G	WiFi	BT	Simultaneously Transmission SAR		
		MaxSAR	Ant1 (Core0)	Ant2 (Core1)	MIMO	Ant1 (Core0)	Ant2 (Core1)	5G MIMO	Power Level A	1+8	1+3+8	1+6+8
		1	2	3	4	5	6	7	8			
Body Worn	Back side	0.392	0.121	0.074	0.142	0.096	0.052	0.148	0.056	0.448	0.522	0.500
	Front side	0.385	0.074	0.014	0.109	0.001	0.001	0.002	0.063	0.448	0.462	0.449
Hotspot	Front side	0.469	0.195	0.215	0	0.090	0.190	0.280	0.166	0.635	0.850	0.825
	Back side	0.598	0.213	0.007	0	0.063	0.001	0.064	0.151	0.749	0.756	0.750
	Left side	0.119	0	0.085	0	0	0.057	0.057	0	0.119	0.204	0.176
	Right side	0.075	0.178	0	0	0.108	0	0.108	0.061	0.136	0.136	0.136
	Top side	0.739	0.288	0.008	0	0.259	0.087	0.346	0.391	1.130	1.138	1.217
	Bottom side	0	0	0	0	0	0	0	0	0	0	0
Product Specific 10-g	Back side	0	0	0	0.858	0.500	0.452	0.952	0.290	0.29	0.29	0.742
	Front side	0	0	0	0.465	0.443	0.103	0.546	0.266	0.266	0.266	0.369
	Left side	0	0	0	0.149	0.000	0.194	0.194	0	0	0	0.194
	Right side	0	0	0	0.462	0.300	0.000	0.3	0.113	0.113	0.113	0.113
	Top side	0	0	0	1.117	0.774	0.364	1.138	0.556	0.556	0.556	0.92
	Bottom side	0	0	0	0	0	0	0	0	0	0	0

H-field strength test results test by Huawei Technologies Co., Ltd.

Charge amount	Frequency Range (kHz)	Distance (cm)	Test Position	Test Results(A/m)	Limit (A/m)	Conclusion
10%	110~148	10cm	Back side	0.138	1.63	pass
10%	110~148	10cm	Front side	0.135	1.63	pass
10%	110~148	10cm	Left side	0.129	1.63	pass
10%	110~148	10cm	Right side	0.131	1.63	pass
10%	110~148	10cm	Top side	0.133	1.63	pass
10%	110~148	10cm	Bottom side	0.135	1.63	pass
50%	110~148	10cm	Back side	0.139	1.63	pass
50%	110~148	10cm	Front side	0.137	1.63	pass
50%	110~148	10cm	Left side	0.131	1.63	pass
50%	110~148	10cm	Right side	0.133	1.63	pass
50%	110~148	10cm	Top side	0.133	1.63	pass
50%	110~148	10cm	Bottom side	0.135	1.63	pass
90%	110~148	10cm	Back side	0.140	1.63	pass
90%	110~148	10cm	Front side	0.132	1.63	pass
90%	110~148	10cm	Left side	0.127	1.63	pass
90%	110~148	10cm	Right side	0.132	1.63	pass
90%	110~148	10cm	Top side	0.135	1.63	pass
90%	110~148	10cm	Bottom side	0.133	1.63	pass

The device also supports Tx wireless charging function. When the device is working on Tx wireless charging mode, other Tx antennas(2G/3G/4G/WIFI/BT) can still work. So this simultaneous transmission should also be considered.

Per KDB 447498D01, the following test exclusion conditions should be satisfied for all combinations of simultaneous transmission configurations:

The $[\Sigma \text{ of (the highest measured or estimated SAR for each standalone antenna configuration, adjusted for maximum tune-up tolerance) / 1.6 W/kg} + [\Sigma \text{ of MPE ratios}]] \leq 1.0$.

Similarly For Product Specific 10-g SAR, the test exclusion conditions should be:

The $[\Sigma \text{ of (the highest measured or estimated SAR for each standalone antenna configuration, adjusted for maximum tune-up tolerance) / 4.0 W/kg} + [\Sigma \text{ of MPE ratios}]] \leq 1.0$.

The RF exposure ratios for all combinations of simultaneous transmission configurations are calculated as below:

exposure condition	MAX Simultaneous Transmission SAR (W/kg)	SAR Limit (W/kg)	Max H-field (A/m)	MPE Limit (A/m)	RF exposure ratio (≤ 1.0)	Conclusion
Body-worn	0.682	1.6	0.140	1.63	0.512	PASS
Hotspot	1.187	1.6	0.140	1.63	0.828	PASS
Product Specific 10-g SAR	1.117	4.0	0.140	1.63	0.365	PASS

Simultaneous transmission RF exposure ratios for SAR & MPE(H-Field)

Conclusion:

According to the KDB 690783 D01 section 1) d) i), when the sum of 1-g SAR applies for simultaneous transmission SAR test exclusion, the highest sum of 1-g SAR according to the highest reported stand-alone SAR values is used, and the highest Reported SAR for simultaneous transmission exposure conditions is 1.557 W/kg

11 Measurement Uncertainty

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

ANNEX A: Test Layout

(Please See R1904H0073 SAR ANNEX A Test Layout)

ANNEX B: System Check Results

(Please See R1904H0073 SAR ANNEX B System Check Results & ANNEX C Highest Graph Results)

ANNEX C: Highest Graph Results

(Please See R1904H0073 SAR ANNEX B System Check Results & ANNEX C Highest Graph Results)

ANNEX D: Probe Calibration Certificate

(Please See R1904H0073 SAR ANNEX D-L Calibration Certificate)

ANNEX E: D750V3 Dipole Calibration Certificate

(Please See R1904H0073 SAR ANNEX D-L Calibration Certificate)

ANNEX F: D835V2 Dipole Calibration Certificate

(Please See R1904H0073 SAR ANNEX D-L Calibration Certificate)

ANNEX G: D1750V2 Dipole Calibration Certificate

(Please See R1904H0073 SAR ANNEX D-L Calibration Certificate)

ANNEX H: D1900V2 Dipole Calibration Certificate

(Please See R1904H0073 SAR ANNEX D-L Calibration Certificate)

ANNEX I: D2450V2 Dipole Calibration Certificate

(Please See R1904H0073 SAR ANNEX D-L Calibration Certificate)

ANNEX J: D2600V2 Dipole Calibration Certificate

(Please See R1904H0073 SAR ANNEX D-L Calibration Certificate)

ANNEX K: D5GHzV2 Dipole Calibration Certificate

(Please See R1904H0073 SAR ANNEX D-L Calibration Certificate)

ANNEX L: DAE4 Calibration Certificate

(Please See R1904H0073 SAR ANNEX D-L Calibration Certificate)

ANNEX M: The EUT Appearances and Test Configuration

(Please See R1904H0073 SAR ANNEX M SAR Test Setup&R1904H0073 SAR ANNEX M The EUT Appearances)