



# SAR TEST REPORT

**Applicant**      Xiaomi Communications Co., Ltd.  
**FCC ID**            2AFZZNC4L  
**Product**          Mobile Phone  
**Brand**             Redmi  
**Model**             2212ARNC4L  
**Report No.**       R2209A0813-S1V1  
**Issue Date**       November 22, 2022

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

*Wei Fangying*

*Fan Guangchang*

*Prepared by: Wei Fangying*

*Approved by: Fan Guangchang*

**TA Technology (Shanghai) Co., Ltd.**

*Building 3, No.145, Jintang Rd, Pudong Shanghai, P.R.China*

*TEL: +86-021-50791141/2/3*

*FAX: +86-021-50791141/2/3-8000*

## Table of Contents

1	Test Laboratory.....	5
1.1	Notes of the Test Report.....	5
1.2	Test Facility.....	5
1.3	Testing Location.....	5
1.4	Laboratory Environment.....	5
2	Statement of Compliance.....	6
3	Description of Equipment Under Test.....	8
4	Test Specification, Methods and Procedures.....	10
5	Operational Conditions during Test.....	11
5.1	Test Positions.....	11
5.1.1	Against Phantom Head.....	11
5.1.2	Body Worn Configuration.....	11
5.1.3	Phablet SAR Test Considerations.....	12
5.2	Measurement Variability.....	13
5.3	Test Configuration.....	14
5.3.1	GSM Test Configuration.....	14
5.3.2	WCDMA Test Configuration.....	14
5.3.3	LTE Test Configuration.....	18
5.3.4	Additional Requirements for TDD LTE Specification.....	19
5.3.5	Wi-Fi Test Configuration.....	21
5.3.6	Bluetooth Test Configuration.....	23
5.3.7	Proximity Sensor Configuration.....	24
5.3.8	Procedures for Determining Proximity Sensor Triggering Distances.....	30
5.3.9	Procedures For Determining Device Tilt Angle Influences to Proximity Sensor Triggering.....	33
5.3.10	SAR Detection Mechanism Specification.....	35
6	SAR Measurements System Configuration.....	36
6.1	SAR Measurement Set-up.....	36
6.2	DASY5 E-field Probe System.....	37
6.3	SAR Measurement Procedure.....	38
7	Main Test Equipment.....	40
8	Tissue Dielectric Parameter Measurements & System Check.....	41
8.1	Tissue Verification.....	41
8.2	System Check.....	43
8.3	SAR System Validation.....	46
9	Normal and Maximum Output Power.....	47
9.1	GSM Mode.....	47
9.2	WCDMA Mode.....	52
9.3	LTE Mode.....	61
9.4	WLAN Mode.....	186
9.5	Bluetooth Mode.....	192



10	Measured and Reported (Scaled) SAR Results .....	193
10.1	EUT Antenna Locations .....	193
10.2	Measured SAR Results.....	194
10.3	Simultaneous Transmission Analysis.....	226
11	Measurement Uncertainty .....	229
	ANNEX A: Test Layout.....	230
	ANNEX B: System Check Results.....	232
	ANNEX C: Highest Graph Results.....	253
	ANNEX D: Probe Calibration Certificate.....	293
	ANNEX E: D750V3 Dipole Calibration Certificate.....	315
	ANNEX F: D835V2 Dipole Calibration Certificate.....	323
	ANNEX G: D1750V2 Dipole Calibration Certificate .....	331
	ANNEX H: D1900V2 Dipole Calibration Certificate .....	339
	ANNEX I: D2450V2 Dipole Calibration Certificate .....	347
	ANNEX J: D2600V2 Dipole Calibration Certificate .....	355
	ANNEX K: D5GHzV2 Dipole Calibration Certificate .....	361
	ANNEX L: DAE4 Calibration Certificate.....	375
	ANNEX M: The EUT Appearance.....	378
	ANNEX N: Test Setup Photos.....	379



Version	Revision description	Issue Date
Rev.0	Initial issue of report.	November 18, 2022
Rev.1	Update data.	November 19, 2022

Note: This revised report (Report No. R2209A0813-S1V1) supersedes and replaces the previously issued report (Report No. R2209A0813-S1). Please discard or destroy the previously issued report and dispose of it accordingly.



## 1 Test Laboratory

### 1.1 Notes of the Test Report

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

### 1.2 Test Facility

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

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

#### **A2LA (Certificate Number: 3857.01)**

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

### 1.3 Testing Location

Company: TA Technology (Shanghai) Co., Ltd.  
 Address: Building 3, No.145, Jintang Rd, Pudong Shanghai, P.R.China  
 City: Shanghai  
 Post code: 201201  
 Country: P. R. China  
 Contact: Fan Guangchang  
 Telephone: +86-021-50791141/2/3  
 Fax: +86-021-50791141/2/3-8000  
 Website: <http://www.ta-shanghai.com>  
 E-mail: [fanguangchang@ta-shanghai.com](mailto:fanguangchang@ta-shanghai.com)

### 1.4 Laboratory Environment

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

## 2 Statement of Compliance

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

Table 1: Highest Reported SAR

Mode	Highest Reported SAR (W/kg)				
	1g SAR Head	1g SAR Body-worn (Separation 10mm) & 1g SAR triggering distance minus 1mm (Front)	1g SAR Hotspot (Separation 10mm) & 1g SAR triggering distance minus 1mm (Front)	1g SAR triggering distance minus 1mm	Product Specific 10-g SAR (Separation 0mm)
GSM 850	1.02	0.58	0.58	0.34	NA
GSM 1900	0.56	0.64	0.64	0.38	NA
WCDMA Band II	1.02	<b>0.98</b>	<b>0.98</b>	0.98	<b>1.80</b>
WCDMA Band IV	1.03	0.52	0.86	<b>1.07</b>	1.70
WCDMA Band V	0.97	0.56	0.56	0.44	NA
LTE FDD 2	0.74	0.95	0.95	0.95	1.27
LTE FDD 5	<b>1.08</b>	0.48	0.48	0.42	NA
LTE FDD 7	0.78	0.61	0.80	0.98	1.58
LTE FDD 13	0.94	0.44	0.44	0.36	NA
LTE FDD 26	1.05	0.57	0.57	0.44	NA
LTE TDD 38	0.87	0.53	0.85	0.61	NA
LTE TDD 41	1.07	0.61	0.94	0.76	NA
LTE FDD 66 (LTE FDD 4)	0.87	0.94	0.94	<b>1.07</b>	1.56
Wi-Fi (2.4G)	0.50	0.29	0.29	NA	NA
Wi-Fi (5G)	0.53	0.64	0.70	NA	1.77
Bluetooth	0.18	0.13	0.13	NA	NA

Date of Testing: October 11, 2022 ~ October 31, 2022

Date of Sample Received: October 8, 2022

Note:

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



- 1) According to TCB workshop October, 2014 RF Exposure Procedures Update (Overlapping LTE Bands):
  - a) Low and Upper Antenna SAR for LTE Band 4 (Frequency range 1710-1755 MHz) is covered by LTE Band 66 (Frequency range: 1710-1780 MHz) due to similar frequency range, same maximum tune up limit and same channel bandwidth.

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.

Table 2: Highest Simultaneous Transmission SAR

Exposure Configuration	1g SAR Head	1g SAR Body-worn (Separation 10mm)	1g SAR Hotspot (Separation 10mm)	Product Specific 10-g SAR (Separation 0mm)
Highest Simultaneous Transmission SAR (W/kg)	1.58	1.53	1.56	3.43
Note: The detail for simultaneous transmission consideration is described in chapter 10.3.				

### 3 Description of Equipment Under Test

#### Client Information

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

#### General Technologies

Application Purpose	Original Grant
EUT Stage	Identical Prototype
Model	2212ARNC4L
IMEI	IMEI 1: 861591060034366 IMEI 2: 861591060034374
Hardware Version	P1.1
Software Version	MIUI 13
Antenna Type	PIFA 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 WCDMA Band II/IV/V: 3 LTE FDD 2/4/5/7/13/26/66: 3 LTE TDD 38/41: 3
Power Level	GSM 850: level 5 GSM 1900: level 0 WCDMA Band II/IV/V: all up bits LTE FDD 2/4/5/7/13/26/66: max power LTE TDD 38/41: max power
Note: The EUT is sent from the applicant to TA and the information of the EUT is declared by the applicant.	





## Wireless Technology and Frequency Range

Wireless Technology		Modulation	Operating mode	Tx (MHz)
GSM	850	Voice(GMSK) GPRS(GMSK) EGPRS(GMSK,8PSK)	<input type="checkbox"/> Multi-slot Class:8-1UP <input type="checkbox"/> Multi-slot Class:10-2UP <input checked="" type="checkbox"/> Multi-slot Class:12-4UP <input type="checkbox"/> Multi-slot Class:33-4UP	824 ~ 849
	1900			1850 ~ 1910
	Does this device support DTM (Dual Transfer Mode)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
WCDMA	Band II	QPSK	HSDPA UE Category:4 HSUPA UE Category:5	1850 ~ 1910
	Band IV			1710 ~ 1755
	Band V			824 ~ 849
LTE	FDD 2	QPSK, 16QAM, 64QAM	Category 5	1850 ~ 1910
	FDD 4			1710 ~ 1755
	FDD 5			824 ~ 849
	FDD 7			2500 ~ 2570
	FDD 13			777 ~ 787
	FDD 26			814 ~ 849
	TDD 38			2570 ~ 2620
	TDD 41			2496 ~ 2690
	FDD 66			1710 ~ 1780
	Does this device support Carrier Aggregation (CA) <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
Does this device support SV-LTE (1xRTT-LTE)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
Bluetooth	2.4G	Version 5.1 BR/EDR + LE		2402 ~ 2480
Wi-Fi	2.4G	DSSS, OFDM	802.11b/g/n HT20	2412 ~ 2462
	5G	OFDM	802.11a/n HT20/ HT40/ ac VHT20/ VHT40/ VHT80	5150 ~ 5350
			5470 ~ 5850	
Does this device support MIMO <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				



## 4 Test Specification, Methods and Procedures

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

### Reference Standards

KDB 248227 D01 802.11Wi-Fi SAR v02r02

KDB 447498 D01 General RF Exposure Guidance v06

KDB 648474 D04 Handset SAR v01r03

KDB 690783 D01 SAR Listings on Grants v01r03

KDB 865664 D01 SAR measurement 100 MHz to 6 GHz v01r04

KDB 865664 D02 RF Exposure Reporting v01r02

KDB 941225 D01 3G SAR Procedures v03r01

KDB 941225 D05 SAR for LTE Devices v02r05

KDB 941225 D06 Hotspot Mode v02r01

## 5 Operational Conditions during Test

### 5.1 Test Positions

#### 5.1.1 Against Phantom Head

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

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

#### 5.1.2 Body Worn Configuration

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

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

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

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

### 5.1.3 Phablet SAR Test Considerations

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

- a) The normally required head and body-worn accessory SAR test procedures for handsets, including hotspot mode, must be applied.
- b) The UMPC mini-tablet procedures must also be applied to test the SAR of all surfaces and edges with an antenna located at  $\leq 25$  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  $\geq 0.80$  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  $\geq 1.45$  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  $\geq 1.5$  W/kg and the ratio of largest to smallest SAR for the original, first and second repeated measurements is  $> 1.20$ .
- 4) Repeated measurements are not required when the original highest measured SAR is  $< 0.80$  W/kg

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

## 5.3 Test Configuration

### 5.3.1 GSM Test Configuration

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

Output power of reductions:

**Table 3: The allowed power reduction in the multi-slot configuration**

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

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

### 5.3.2 WCDMA Test Configuration

#### 5.3.2.1 3G SAR Test Reduction Procedure

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

#### 5.3.2.2 Head SAR

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

### 5.3.2.3 Body-worn Accessory SAR

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

### 5.3.2.4 Release 5 HSDPA Test Configuration

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

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

**Table 4: Subtests for WCDMA Release 5 HSDPA**

Sub-set	$\beta_c$	$\beta_d$	$\beta_d$ (SF)	$\beta_c/\beta_d$	$\beta_{hs}$ (note 1, note 2)	CM(dB) (note 3)	MPR(dB)
1	2/15	15/15	64	2/15	4/15	0.0	0.0
2	12/15 (note 4)	15/15 (note 4)	64	12/15 (note 4)	24/15	1.0	0.0
3	15/15	8/15	64	15/8	30/15	1.5	0.5
4	15/15	4/15	64	15/4	30/15	1.5	0.5

Note 1:  $\Delta_{ACK}$ ,  $\Delta_{NACK}$  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  $\beta_c/\beta_d = 12/15$ ,  $\beta_{hs}/\beta_c = 24/15$ .

Note 3: For subtest 2 the  $\beta_c/\beta_d$  ratio of 12/15 for the TFC during the measurement period (TF1, TF0) is achieved by setting the signaled gain factors for the reference TFC (TFC1, TF1) to  $\beta_c = 11/15$  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  $\beta$  values indicated in Table 2 and other applicable procedures described in the ‘WCDMA EUT’ and ‘Release 5 HSDPA Data Devices’ sections of this document

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

Sub-set	$\beta_c$	$\beta_d$	$\beta_d$ (SF)	$\beta_c/\beta_d$	$\beta_{hs}^{(1)}$	$\beta_{ec}$	$\beta_{ed}$	$\beta_{ed}$ (SF)	$\beta_{ed}$ (codes)	CM <sup>(2)</sup> (dB)	MPR (dB)	AG <sup>(4)</sup> Index	E-TFCI
1	11/15 <sup>(3)</sup>	15/15 <sup>(3)</sup>	64	11/15 <sup>(3)</sup>	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	$\beta_{ed1}$ 47/15 $\beta_{ed2}$ 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 <sup>(4)</sup>	15/15 <sup>(4)</sup>	64	15/15 <sup>(4)</sup>	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  $\beta_c/\beta_d$  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  $\beta_c/\beta_d$  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:  $\beta_{ed}$  cannot be set directly; it is set by Absolute Grant Value.

**Table 6: HSUPA UE Category**

UE E-DCH Category	Maximum E-DCH Codes Transmitted	Number of HARQ Processes	E-DCHTTI (ms)	Minimum Spreading Factor	Maximum E-DCH Transport Block Bits	Max Rate (Mbps)
1	1	4	10	4	7110	0.7296
2	2	8	2	4	2798	1.4592
	2	4	10	4	14484	
3	2	4	10	4	14484	1.4592





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

### 5.3.2.6 HSPA 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. 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  $\beta$  and  $\Delta$  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 7: HS-DSCH UE Category**

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

**5.3.3 LTE Test Configuration**

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

**A) Spectrum Plots for RB Configurations**

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

**B) MPR**

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

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

### C) A-MPR

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

### D) Largest Channel Bandwidth Standalone SAR Test Requirements

#### 1) QPSK with 1 RB allocation

Start with the largest channel bandwidth and measure SAR for QPSK with 1 RB allocation, using the RB offset and required test channel combination with the highest maximum output power for RB offsets at the upper edge, middle and lower edge of each required test channel. When the reported SAR is  $\leq 0.8$  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  $\leq 0.8$  W/kg. Otherwise, SAR is measured for the highest output power channel and if the reported SAR is  $> 1.45$  W/kg, the remaining required test channels must also be tested.

#### 4) Higher order modulations

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

### E) Other Channel Bandwidth Standalone SAR Test Requirements

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

### 5.3.4 Additional Requirements for TDD LTE Specification

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

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

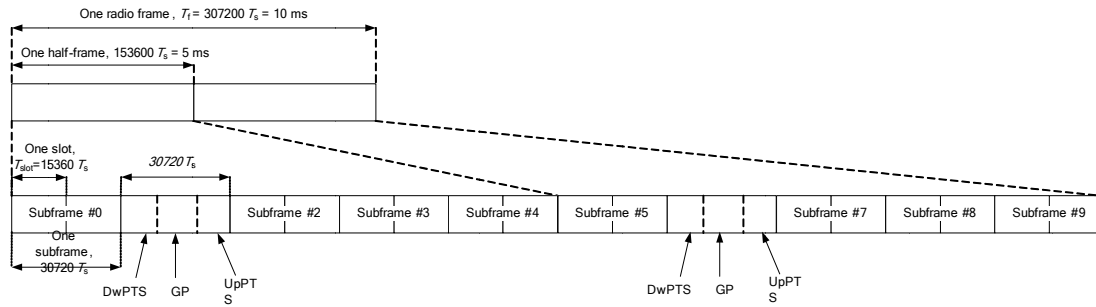


Figure 1: Frame structure type 2

Table 8: Configuration of Special Subframe (Lengths of DwPTS/GP/UpPTS)

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

Table 9: Uplink-Downlink Configurations

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

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

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

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

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

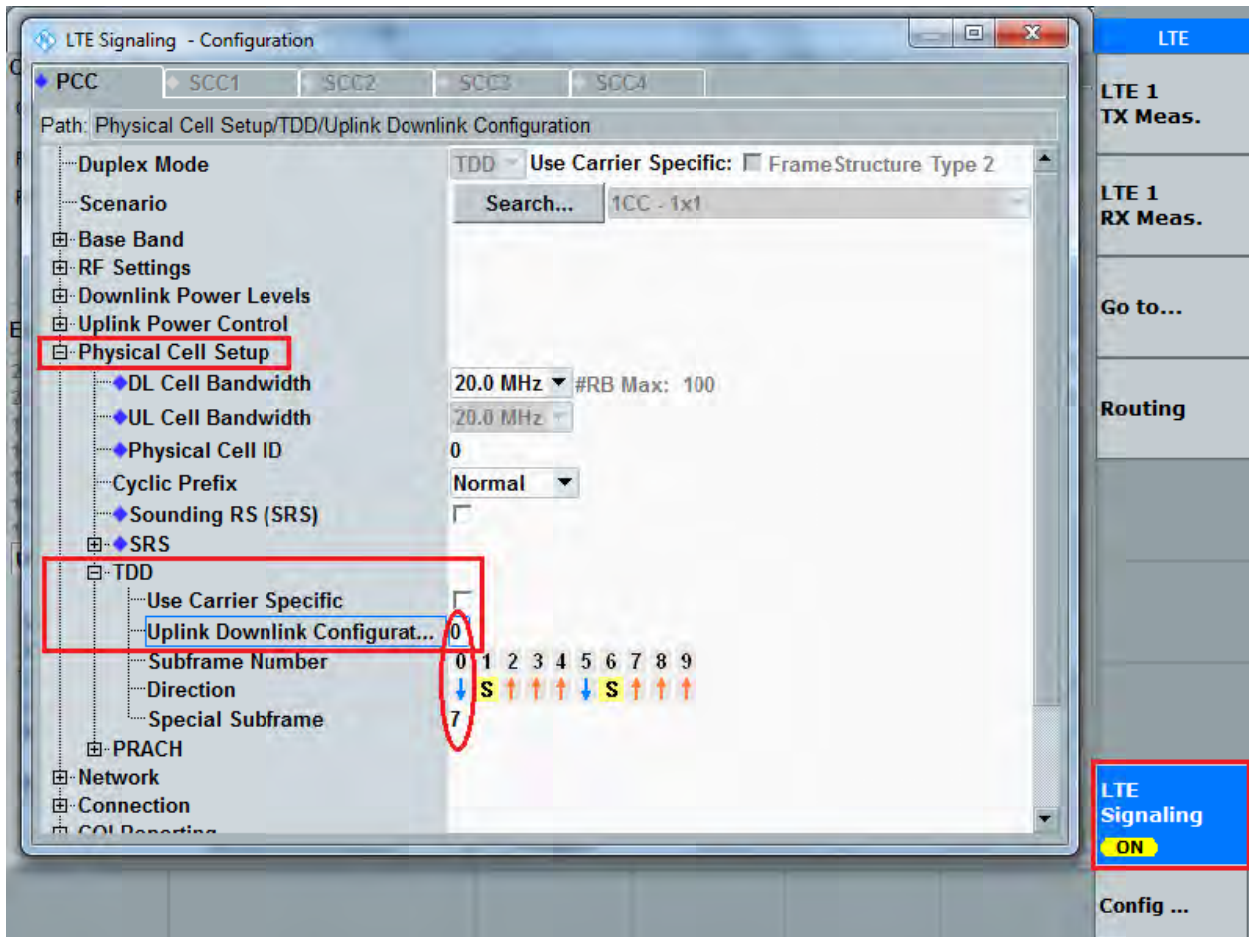
In conclusion, for the TDD LTE Band, Duty Cycle can be calculated with formula as below. All these sets are ok when we test, or we can set as below.

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

And we can get different Duty cycles under different configurations:

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

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



### 5.3.5 Wi-Fi Test Configuration

SAR test reduction for 802.11 Wi-Fi transmission mode configurations are considered separately for DSSS and OFDM. An initial test position is determined to reduce the number of tests required for



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

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

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

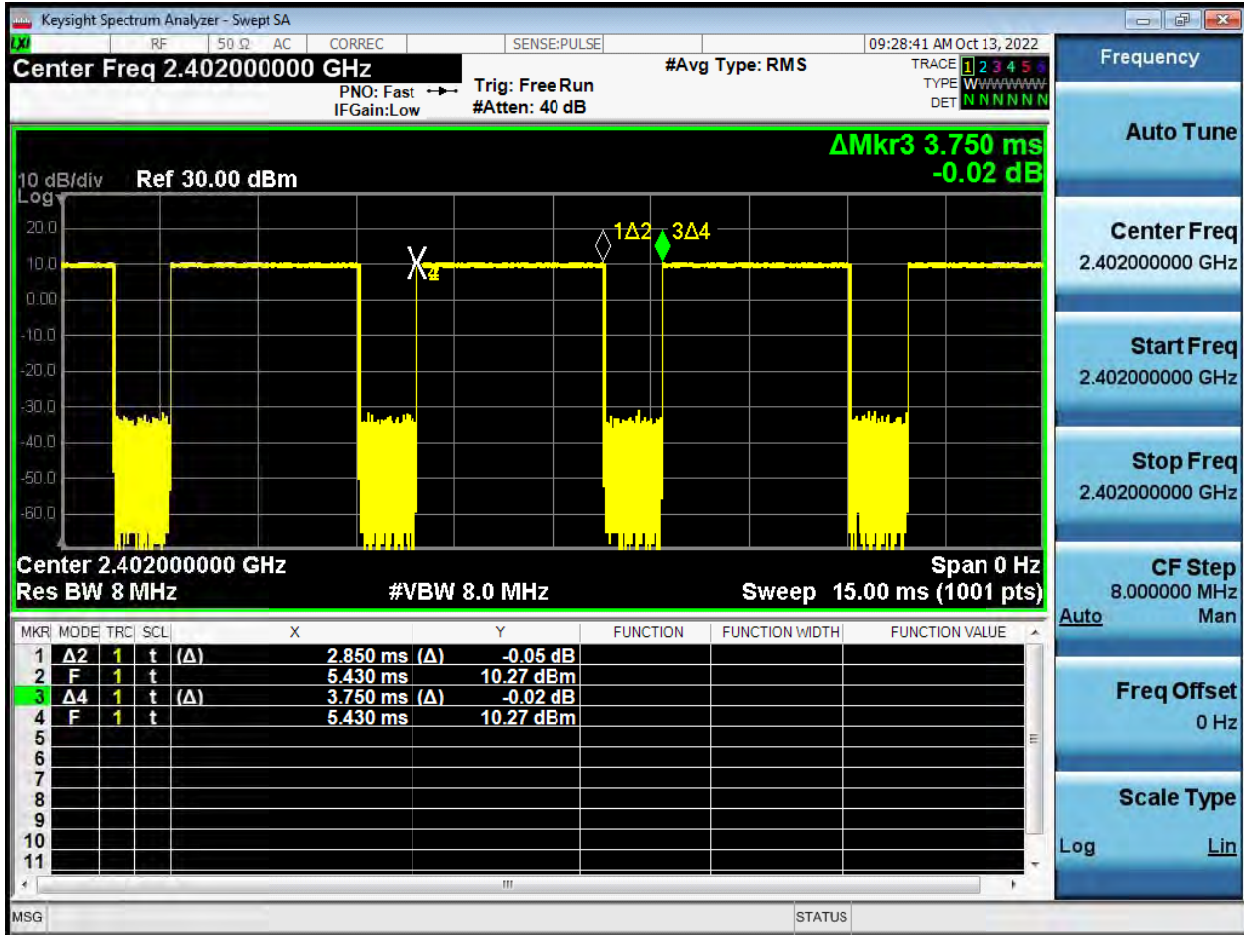
To determine the initial test position, Area Scans were performed to determine the position with the Maximum Value of SAR (measured). The position that produced the highest Maximum Value of SAR is considered the worst case position; thus used as the initial test position.

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

### 5.3.6 Bluetooth Test Configuration

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

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



Note: Duty factor= Ton (ms)/ T(on+off) (ms)=2.850/3.750\*100%=76%

### 5.3.7 Proximity Sensor Configuration

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

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

Low Antenna				
Band	Test Position	Sensor Trigger Distance Range (DUT to Phantom)	Power Reduction Amount(dB)	Power Level
GSM 850	Back Side	0mm≤Distance≤17mm	0	DSI-4
		17mm<Distance	0	DSI-2
	Front Side	0mm≤Distance≤10mm	0	DSI-4
		10mm<Distance	0	DSI-2
	Left Edge	/	0	DSI-2
	Right Edge	/	0	DSI-2
	Top Edge	/	0	DSI-2
	Bottom Edge	0mm≤Distance≤17mm	0	DSI-4
		17mm<Distance	0	DSI-2
	GSM 1900	Back Side	0mm≤Distance≤17mm	2.5
17mm<Distance			0	DSI-2
Front Side		0mm≤Distance≤10mm	2.5	DSI-4
		10mm<Distance	0	DSI-2
Left Edge		/	0	DSI-2
Right Edge		/	0	DSI-2
Top Edge		/	0	DSI-2
Bottom Edge		0mm≤Distance≤17mm	2.5	DSI-4
		17mm<Distance	0	DSI-2
WCDMA B2		Back Side	0mm≤Distance≤17mm	3.5
	17mm<Distance		0	DSI-2
	Front Side	0mm≤Distance≤10mm	3.5	DSI-4
		10mm<Distance	0	DSI-2
	Left Edge	/	0	DSI-2
	Right Edge	/	0	DSI-2
	Top Edge	/	0	DSI-2
	Bottom Edge	0mm≤Distance≤17mm	3.5	DSI-4





		17mm<Distance	0	DSI-2
WCDMA B4	Back Side	0mm≤Distance≤17mm	4	DSI-4
		17mm<Distance	0	DSI-2
	Front Side	0mm≤Distance≤10mm	4	DSI-4
		10mm<Distance	0	DSI-2
	Left Edge	/	0	DSI-2
	Right Edge	/	0	DSI-2
	Top Edge	/	0	DSI-2
	Bottom Edge	0mm≤Distance≤17mm	4	DSI-4
17mm<Distance		0	DSI-2	
WCDMA B5	Back Side	0mm≤Distance≤17mm	0.5	DSI-4
		17mm<Distance	0	DSI-2
	Front Side	0mm≤Distance≤10mm	0.5	DSI-4
		10mm<Distance	0	DSI-2
	Left Edge	/	0	DSI-2
	Right Edge	/	0	DSI-2
	Top Edge	/	0	DSI-2
	Bottom Edge	0mm≤Distance≤17mm	0.5	DSI-4
17mm<Distance		0	DSI-2	
LTE B2	Back Side	0mm≤Distance≤17mm	4	DSI-4
		17mm<Distance	0	DSI-2
	Front Side	0mm≤Distance≤10mm	4	DSI-4
		10mm<Distance	0	DSI-2
	Left Edge	/	0	DSI-2
	Right Edge	/	0	DSI-2
	Top Edge	/	0	DSI-2
	Bottom Edge	0mm≤Distance≤17mm	4	DSI-4
17mm<Distance		0	DSI-2	
LTE B4	Back Side	0mm≤Distance≤17mm	4	DSI-4
		17mm<Distance	0	DSI-2
	Front Side	0mm≤Distance≤10mm	4	DSI-4
		10mm<Distance	0	DSI-2
	Left Edge	/	0	DSI-2
	Right Edge	/	0	DSI-2
	Top Edge	/	0	DSI-2
	Bottom Edge	0mm≤Distance≤17mm	4	DSI-4
17mm<Distance		0	DSI-2	
LTE B5	Back Side	0mm≤Distance≤17mm	0.5	DSI-4
		17mm<Distance	0	DSI-2
	Front Side	0mm≤Distance≤10mm	0.5	DSI-4
		10mm<Distance	0	DSI-2
	Left Edge	/	0	DSI-2
Right Edge	/	0	DSI-2	



	Top Edge	/	0	DSI-2
	Bottom Edge	0mm≤Distance≤17mm	0.5	DSI-4
		17mm<Distance	0	DSI-2
LTE B7	Back Side	0mm≤Distance≤17mm	5	DSI-4
		17mm<Distance	0	DSI-2
	Front Side	0mm≤Distance≤10mm	5	DSI-4
		10mm<Distance	0	DSI-2
	Left Edge	/	0	DSI-2
	Right Edge	/	0	DSI-2
	Top Edge	/	0	DSI-2
	Bottom Edge	0mm≤Distance≤17mm	5	DSI-4
17mm<Distance		0	DSI-2	
LTE B13	Back Side	0mm≤Distance≤17mm	0.5	DSI-4
		17mm<Distance	0	DSI-2
	Front Side	0mm≤Distance≤10mm	0.5	DSI-4
		10mm<Distance	0	DSI-2
	Left Edge	/	0	DSI-2
	Right Edge	/	0	DSI-2
	Top Edge	/	0	DSI-2
	Bottom Edge	0mm≤Distance≤17mm	0.5	DSI-4
17mm<Distance		0	DSI-2	
LTE B26	Back Side	0mm≤Distance≤17mm	0.5	DSI-4
		17mm<Distance	0	DSI-2
	Front Side	0mm≤Distance≤10mm	0.5	DSI-4
		10mm<Distance	0	DSI-2
	Left Edge	/	0	DSI-2
	Right Edge	/	0	DSI-2
	Top Edge	/	0	DSI-2
	Bottom Edge	0mm≤Distance≤17mm	0.5	DSI-4
17mm<Distance		0	DSI-2	
LTE B38	Back Side	0mm≤Distance≤17mm	2.5	DSI-4
		17mm<Distance	0	DSI-2
	Front Side	0mm≤Distance≤10mm	2.5	DSI-4
		10mm<Distance	0	DSI-2
	Left Edge	/	0	DSI-2
	Right Edge	/	0	DSI-2
	Top Edge	/	0	DSI-2
	Bottom Edge	0mm≤Distance≤17mm	2.5	DSI-4
17mm<Distance		0	DSI-2	
LTE B41	Back Side	0mm≤Distance≤17mm	2.5	DSI-4
		17mm<Distance	0	DSI-2
	Front Side	0mm≤Distance≤10mm	2.5	DSI-4
		10mm<Distance	0	DSI-2



	Left Edge	/	0	DSI-2
	Right Edge	/	0	DSI-2
	Top Edge	/	0	DSI-2
	Bottom Edge	0mm≤Distance≤17mm	2.5	DSI-4
		17mm<Distance	0	DSI-2
LTE B66	Back Side	0mm≤Distance≤17mm	4	DSI-4
		17mm<Distance	0	DSI-2
	Front Side	0mm≤Distance≤10mm	4	DSI-4
		10mm<Distance	0	DSI-2
	Left Edge	/	0	DSI-2
	Right Edge	/	0	DSI-2
	Top Edge	/	0	DSI-2
	Bottom Edge	0mm≤Distance≤17mm	4	DSI-4
17mm<Distance		0	DSI-2	
Upper Antenna				
Band	Test Position	Sensor Trigger Distance Range (DUT to Phantom)	Power Reduction Amount(dB)	Power Level
GSM 850	Back Side	0mm≤Distance≤17mm	0.5	DSI-4
		17mm<Distance	0	DSI-2
	Front Side	0mm≤Distance≤10mm	0.5	DSI-4
		10mm<Distance	0	DSI-2
	Left Edge	/	0	DSI-2
	Right Edge	/	0	DSI-2
	Top Edge	0mm≤Distance≤17mm	0.5	DSI-4
17mm<Distance		0	DSI-2	
Bottom Edge	/	0	DSI-2	
GSM 1900	Back Side	0mm≤Distance≤17mm	5	DSI-4
		17mm<Distance	0	DSI-2
	Front Side	0mm≤Distance≤10mm	5	DSI-4
		10mm<Distance	0	DSI-2
	Left Edge	/	0	DSI-2
	Right Edge	/	0	DSI-2
	Top Edge	0mm≤Distance≤17mm	5	DSI-4
17mm<Distance		0	DSI-2	
Bottom Edge	/	0	DSI-2	
WCDMA B2	Back Side	0mm≤Distance≤17mm	4.5	DSI-4
		17mm<Distance	0	DSI-2
	Front Side	0mm≤Distance≤10mm	4.5	DSI-4
		10mm<Distance	0	DSI-2
	Left Edge	/	0	DSI-2
Right Edge	/	0	DSI-2	
Top Edge	0mm≤Distance≤17mm	4.5	DSI-4	



		17mm<Distance	0	DSI-2
	Bottom Edge	/	0	DSI-2
WCDMA B4	Back Side	0mm≤Distance≤17mm	4	DSI-4
		17mm<Distance	0	DSI-2
	Front Side	0mm≤Distance≤10mm	4	DSI-4
		10mm<Distance	0	DSI-2
	Left Edge	/	0	DSI-2
	Right Edge	/	0	DSI-2
	Top Edge	0mm≤Distance≤17mm	4	DSI-4
		17mm<Distance	0	DSI-2
Bottom Edge	/	0	DSI-2	
WCDMA B5	Back Side	0mm≤Distance≤17mm	0.5	DSI-4
		17mm<Distance	0	DSI-2
	Front Side	0mm≤Distance≤10mm	0.5	DSI-4
		10mm<Distance	0	DSI-2
	Left Edge	/	0	DSI-2
	Right Edge	/	0	DSI-2
	Top Edge	0mm≤Distance≤17mm	0.5	DSI-4
		17mm<Distance	0	DSI-2
Bottom Edge	/	0	DSI-2	
LTE B2	Back Side	0mm≤Distance≤17mm	4.5	DSI-4
		17mm<Distance	0	DSI-2
	Front Side	0mm≤Distance≤10mm	4.5	DSI-4
		10mm<Distance	0	DSI-2
	Left Edge	/	0	DSI-2
	Right Edge	/	0	DSI-2
	Top Edge	0mm≤Distance≤17mm	4.5	DSI-4
		17mm<Distance	0	DSI-2
Bottom Edge	/	0	DSI-2	
LTE B4	Back Side	0mm≤Distance≤17mm	4	DSI-4
		17mm<Distance	0	DSI-2
	Front Side	0mm≤Distance≤10mm	4	DSI-4
		10mm<Distance	0	DSI-2
	Left Edge	/	0	DSI-2
	Right Edge	/	0	DSI-2
	Top Edge	0mm≤Distance≤17mm	4	DSI-4
		17mm<Distance	0	DSI-2
Bottom Edge	/	0	DSI-2	
LTE B5	Back Side	0mm≤Distance≤17mm	1.5	DSI-4
		17mm<Distance	0	DSI-2
	Front Side	0mm≤Distance≤10mm	1.5	DSI-4
		10mm<Distance	0	DSI-2
	Left Edge	/	0	DSI-2



	Right Edge	/	0	DSI-2
	Top Edge	0mm≤Distance≤17mm	1.5	DSI-4
		17mm<Distance	0	DSI-2
	Bottom Edge	/	0	DSI-2
LTE B7	Back Side	0mm≤Distance≤17mm	1.5	DSI-4
		17mm<Distance	0	DSI-2
	Front Side	0mm≤Distance≤10mm	1.5	DSI-4
		10mm<Distance	0	DSI-2
	Left Edge	/	0	DSI-2
	Right Edge	/	0	DSI-2
	Top Edge	0mm≤Distance≤17mm	1.5	DSI-4
		17mm<Distance	0	DSI-2
	Bottom Edge	/	0	DSI-2
LTE B13	Back Side	0mm≤Distance≤17mm	0.5	DSI-4
		17mm<Distance	0	DSI-2
	Front Side	0mm≤Distance≤10mm	0.5	DSI-4
		10mm<Distance	0	DSI-2
	Left Edge	/	0	DSI-2
	Right Edge	/	0	DSI-2
	Top Edge	0mm≤Distance≤17mm	0.5	DSI-4
		17mm<Distance	0	DSI-2
	Bottom Edge	/	0	DSI-2
LTE B26	Back Side	0mm≤Distance≤17mm	0.5	DSI-4
		17mm<Distance	0	DSI-2
	Front Side	0mm≤Distance≤10mm	0.5	DSI-4
		10mm<Distance	0	DSI-2
	Left Edge	/	0	DSI-2
	Right Edge	/	0	DSI-2
	Top Edge	0mm≤Distance≤17mm	0.5	DSI-4
		17mm<Distance	0	DSI-2
	Bottom Edge	/	0	DSI-2
LTE B38	Back Side	0mm≤Distance≤17mm	0.5	DSI-4
		17mm<Distance	0	DSI-2
	Front Side	0mm≤Distance≤10mm	0.5	DSI-4
		10mm<Distance	0	DSI-2
	Left Edge	/	0	DSI-2
	Right Edge	/	0	DSI-2
	Top Edge	0mm≤Distance≤17mm	0.5	DSI-4
		17mm<Distance	0	DSI-2
	Bottom Edge	/	0	DSI-2
LTE B41	Back Side	0mm≤Distance≤17mm	1.5	DSI-4
		17mm<Distance	0	DSI-2
	Front Side	0mm≤Distance≤10mm	1.5	DSI-4

		10mm<Distance	0	DSI-2
	Left Edge	/	0	DSI-2
	Right Edge	/	0	DSI-2
	Top Edge	0mm≤Distance≤17mm	1.5	DSI-4
		17mm<Distance	0	DSI-2
	Bottom Edge	/	0	DSI-2
LTE B66	Back Side	0mm≤Distance≤17mm	4	DSI-4
		17mm<Distance	0	DSI-2
	Front Side	0mm≤Distance≤10mm	4	DSI-4
		10mm<Distance	0	DSI-2
	Left Edge	/	0	DSI-2
	Right Edge	/	0	DSI-2
	Top Edge	0mm≤Distance≤17mm	4	DSI-4
		17mm<Distance	0	DSI-2
Bottom Edge	/	0	DSI-2	

Note:

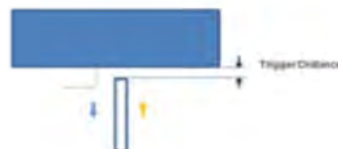
To ensure all production units are compliant, the smallest separation distance determined by the sensor triggering and sensor coverage for normal and tilt positions for all usage conditions and applicable sides, minus 1 mm, must be used as the test separation distance for additional SAR testing of each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

### 5.3.8 Procedures for Determining Proximity Sensor Triggering Distances

The device was tested by the test lab to determine the proximity sensor triggering distances for the backside, top side and bottom edge 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(Back/Front Side)

Picture : Proximity Sensor Triggering Distances Assessment(Top/Bottom Edge)

**Table: Summary of Trigger Distances for Low Antenna :**

Band	Trigger Distance-Back Side		Trigger Distance-Front Side		Trigger Distance-Bottom Edge	
	Moving Toward Phantom	Moving Away from Phantom	Moving Toward Phantom	Moving Away from Phantom	Moving Toward Phantom	Moving Away from Phantom
GSM 850	17	17	10	10	17	17
GSM 1900	17	17	10	10	17	17
WCDMA B2	17	17	10	10	17	17
WCDMA B4	17	17	10	10	17	17
WCDMA B5	17	17	10	10	17	17
LTE B2	17	17	10	10	17	17
LTE B4	17	17	10	10	17	17
LTE B5	17	17	10	10	17	17
LTE B7	17	17	10	10	17	17
LTE B13	17	17	10	10	17	17
LTE B26	17	17	10	10	17	17
LTE B38	17	17	10	10	17	17
LTE B41	17	17	10	10	17	17
LTE B66	17	17	10	10	17	17

**Table: Summary of Trigger Distances for Upper Antenna :**

Band	Trigger Distance-Back Side		Trigger Distance-Front Side		Trigger Distance-Top Edge	
	Moving Toward Phantom	Moving Away from Phantom	Moving Toward Phantom	Moving Away from Phantom	Moving Toward Phantom	Moving Away from Phantom
GSM 850	17	17	10	10	17	17
GSM 1900	17	17	10	10	17	17
WCDMA B2	17	17	10	10	17	17
WCDMA B4	17	17	10	10	17	17
WCDMA B5	17	17	10	10	17	17
LTE B2	17	17	10	10	17	17
LTE B4	17	17	10	10	17	17
LTE B5	17	17	10	10	17	17
LTE B7	17	17	10	10	17	17
LTE B13	17	17	10	10	17	17
LTE B26	17	17	10	10	17	17
LTE B38	17	17	10	10	17	17
LTE B41	17	17	10	10	17	17
LTE B66	17	17	10	10	17	17

**Conclusion:** It can be ensured that the proximity sensor can be valid triggered for the body exposure condition(GSM 850/1900, WCDMA Band2/4/5, LTE Band 2/4/5/7/13/26/38/41/66 with Low Antenna ; GSM 850/1900, WCDMA Band2/4/5, LTE Band 2/4/5/7/13/26/38/41/66 with Upper Antenna)





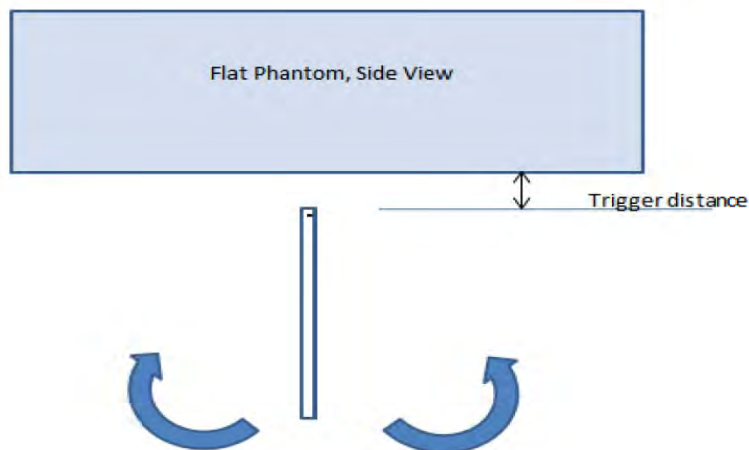
The Detailed Conducted Power Measurement Data to Determine the Triggering Distances is as Below:

Table: Full Power and Reduced Power (Moving Toward Phantom)

Table with multiple sections, each containing columns for Position, Ant, Band, and 30 frequency channels (f1-f30). The data represents SAR values for various antenna configurations and bands.







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

Band (MHz)	Position	Minimum Trigger Distance at which Power Reduction was Maintained over $\pm 45^\circ$	Power Reduction Status										
			$-45^\circ$	$-35^\circ$	$-25^\circ$	$-15^\circ$	$-5^\circ$	$0^\circ$	$5^\circ$	$15^\circ$	$25^\circ$	$35^\circ$	$45^\circ$
GSM 850	Bottom Edge	17mm	on	on	on	on	on	on	on	on	on	on	on
GSM 1900	Bottom Edge	17mm	on	on	on	on	on	on	on	on	on	on	on
WCDMA B2	Bottom Edge	17mm	on	on	on	on	on	on	on	on	on	on	on
WCDMA B4	Bottom Edge	17mm	on	on	on	on	on	on	on	on	on	on	on
WCDMA B5	Bottom Edge	17mm	on	on	on	on	on	on	on	on	on	on	on
LTE B2	Bottom Edge	17mm	on	on	on	on	on	on	on	on	on	on	on
LTE B4	Bottom Edge	17mm	on	on	on	on	on	on	on	on	on	on	on
LTE B5	Bottom Edge	17mm	on	on	on	on	on	on	on	on	on	on	on
LTE B7	Bottom Edge	17mm	on	on	on	on	on	on	on	on	on	on	on
LTE B13	Bottom Edge	17mm	on	on	on	on	on	on	on	on	on	on	on
LTE B26	Bottom Edge	17mm	on	on	on	on	on	on	on	on	on	on	on
LTE B38	Bottom Edge	17mm	on	on	on	on	on	on	on	on	on	on	on
LTE B41	Bottom Edge	17mm	on	on	on	on	on	on	on	on	on	on	on
LTE B66	Bottom Edge	17mm	on	on	on	on	on	on	on	on	on	on	on
GSM 850	Top Edge	17mm	on	on	on	on	on	on	on	on	on	on	on
GSM 1900	Top Edge	17mm	on	on	on	on	on	on	on	on	on	on	on
WCDMA B2	Top Edge	17mm	on	on	on	on	on	on	on	on	on	on	on
WCDMA B4	Top Edge	17mm	on	on	on	on	on	on	on	on	on	on	on
WCDMA B5	Top Edge	17mm	on	on	on	on	on	on	on	on	on	on	on
LTE B2	Top Edge	17mm	on	on	on	on	on	on	on	on	on	on	on
LTE B4	Top Edge	17mm	on	on	on	on	on	on	on	on	on	on	on
LTE B5	Top Edge	17mm	on	on	on	on	on	on	on	on	on	on	on
LTE B7	Top Edge	17mm	on	on	on	on	on	on	on	on	on	on	on



LTE B13	Top Edge	17mm	on	on	on	on	on	on	on	on	on	on	on	on
LTE B26	Top Edge	17mm	on	on	on	on	on	on	on	on	on	on	on	on
LTE B38	Top Edge	17mm	on	on	on	on	on	on	on	on	on	on	on	on
LTE B41	Top Edge	17mm	on	on	on	on	on	on	on	on	on	on	on	on
LTE B66	Top Edge	17mm	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.

### 5.3.10 SAR Detection Mechanism Specification

This device support the receiver and sensor detection mechanism, the main purpose is to minimize triggering associated with power reduction scenarios and provide enhanced user experience.

More details information followings:

Main Antenna			Power Reduction Level Amount (dB)														
Power Reduction Scenario	Power Level	Receiver/Sensor Mode	GSM850	GSM1900	WCDMA B2	WCDMA B4	WCDMA B5	LTE B2	LTE B4	LTE B5	LTE B7	LTE B13	LTE B26	LTE B38	LTE B41	LTE B66	
Full power	Full power	Receiver off+Sensor off	33.50	31.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00
		DSI1 Receiver on	0.00	1.00	0.50	0.50	0.50	0.50	0.50	0.50	0.00	0.50	0.50	2.50	0.50	0.50	
		DSI2 Receiver off+Sensor off	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		DSI4 Receiver off+Sensor on	0.00	2.50	3.50	4.00	0.50	4.00	4.00	0.50	5.00	0.50	0.50	0.50	2.50	4.00	
Standalone	Standalone	Receiver on	0.00	1.00	0.50	0.50	0.50	0.50	0.50	0.00	0.50	0.50	2.50	0.50	0.50		
		DSI1 Receiver on	0.00	1.00	0.50	0.50	0.50	0.50	0.50	0.00	0.50	0.50	2.50	0.50	0.50		
		DSI2 Receiver off+Sensor off	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
		DSI4 Receiver off+Sensor on	0.00	2.50	3.50	4.00	0.50	4.00	4.00	0.50	5.00	0.50	0.50	0.50	2.50	4.00	
Simultaneous	Wi-Fi on	Receiver on	0.00	1.00	0.50	0.50	0.50	0.50	0.50	0.00	0.50	0.50	2.50	0.50	0.50		
		DSI1 Receiver on	0.00	1.00	0.50	0.50	0.50	0.50	0.50	0.00	0.50	0.50	2.50	0.50	0.50		
		DSI2 Receiver off+Sensor off	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
		DSI4 Receiver off+Sensor on	0.00	2.50	3.50	4.00	0.50	4.00	4.00	0.50	5.00	0.50	0.50	0.50	2.50	4.00	

Div Antenna			Power Reduction Level Amount (dB)														
Power Reduction Scenario	Power Level	Receiver/Sensor Mode	GSM850	GSM1900	WCDMA B2	WCDMA B4	WCDMA B5	LTE B2	LTE B4	LTE B5	LTE B7	LTE B13	LTE B26	LTE B38	LTE B41	LTE B66	
Full power	Full power	Receiver off+Sensor off	33.50	31.00	25.00	24.50	25.00	25.00	24.50	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00
		DSI1 Receiver on	0.00	1.50	3.00	4.50	1.50	4.50	6.00	0.50	4.00	0.50	0.50	1.00	1.00	6.00	
		DSI2 Receiver off+Sensor off	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
		DSI4 Receiver off+Sensor on	0.50	5.00	4.50	5.00	0.50	4.50	4.00	1.50	1.50	0.50	0.50	0.50	1.50	4.00	
Standalone	Standalone	Receiver on	0.00	1.50	3.00	4.50	1.50	4.50	6.00	0.50	4.00	0.50	0.50	1.00	1.00	6.00	
		DSI1 Receiver on	0.00	1.50	3.00	4.50	1.50	4.50	6.00	0.50	4.00	0.50	0.50	1.00	1.00	6.00	
		DSI2 Receiver off+Sensor off	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
		DSI4 Receiver off+Sensor on	0.50	5.00	4.50	5.00	0.50	4.50	4.00	1.50	1.50	0.50	0.50	0.50	1.50	4.00	
Simultaneous	Wi-Fi on	Receiver on	0.00	1.50	3.00	4.50	1.50	4.50	6.00	0.50	4.00	0.50	0.50	1.00	1.00	6.00	
		DSI1 Receiver on	0.00	1.50	3.00	4.50	1.50	4.50	6.00	0.50	4.00	0.50	0.50	1.00	1.00	6.00	
		DSI2 Receiver off+Sensor off	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
		DSI4 Receiver off+Sensor on	0.50	5.00	4.50	5.00	0.50	4.50	4.00	1.50	1.50	0.50	0.50	0.50	1.50	4.00	

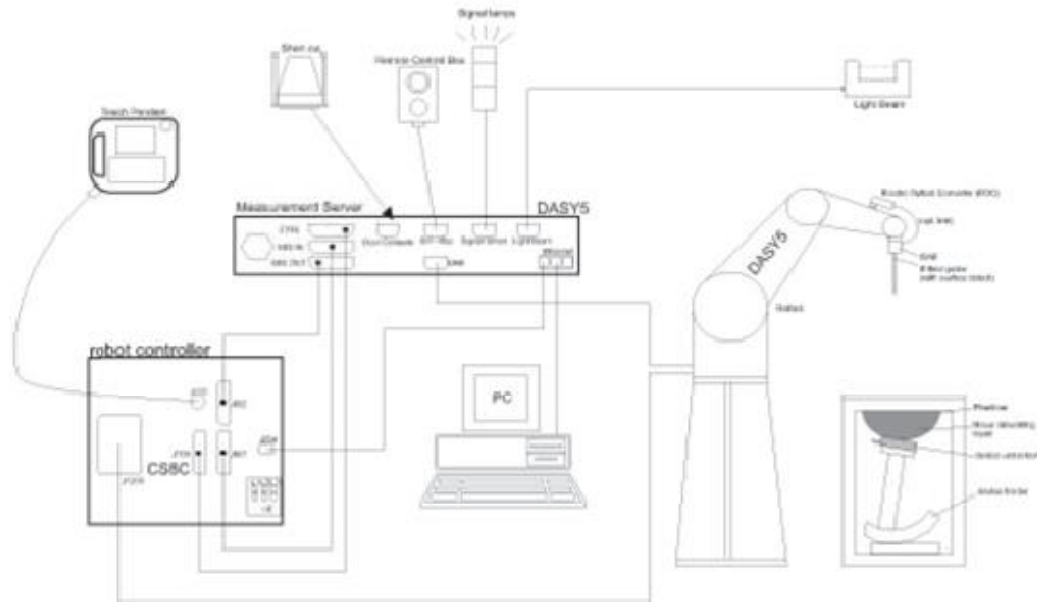
Wi-Fi Antenna		Power Reduction Level Amount (dBm)								
Power Reduction Scenario	Receiver Mode	WiFi 2.4G 11b	WiFi 2.4G 11g	WiFi 2.4G 11n HT20	WiFi 5G 11a	WiFi 5G 11n HT20	WiFi 5G 11n HT40	WiFi 5G 802.11ac VHT20	WiFi 5G 802.11ac VHT40	WiFi 5G 802.11ac VHT80
Full power	off	18.50	17.50	17.50	16.50	15.50	13.50	13.50	13.50	13.50
	on	2.00	2.00	2.00	3.00	3.00	3.00	3.00	3.00	3.00
Standalone	off	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	on	2.00	2.00	2.00	3.00	3.00	3.00	3.00	3.00	3.00
Simultaneous with 2G/3G/4G	off	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	on	2.00	2.00	2.00	3.00	3.00	3.00	3.00	3.00	3.00



## 6 SAR Measurements System Configuration

### 6.1 SAR Measurement Set-up

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



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

## 6.2 DASY5 E-field Probe System

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

### EX3DV4 Probe Specification

Construction	Symmetrical design with triangular core Built-in shielding against static charges PEEK enclosure material (resistant to organic solvents, e.g., DGBE)
Calibration	ISO/IEC 17025 calibration service available
Frequency	10 MHz to > 6 GHz Linearity: $\pm 0.2$ dB (30 MHz to 6 GHz)
Directivity	$\pm 0.3$ dB in HSL (rotation around probe axis) $\pm 0.5$ dB in tissue material (rotation normal to probe axis)
Dynamic Range	10 $\mu$ W/g to > 100 mW/g Linearity: $\pm 0.2$ dB (noise: typically < 1 $\mu$ 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  $\pm 0.25$ dB. The sensitivity parameters (NormX, NormY, NormZ), the diode compression parameter (DCP) and the conversion factor (ConvF) of the probe are tested.

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

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



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

Where:  $\Delta t$  = Exposure time (30 seconds),  
 $C$  = Heat capacity of tissue (brain or muscle),  
 $\Delta T$  = Temperature increase due to RF exposure.

Or

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

Where:  $\sigma$  = Simulated tissue conductivity,  
 $\rho$  = Tissue density ( $\text{kg/m}^3$ ).

### 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° ± 1°	20° ± 1°
Maximum area scan spatial resolution: $\Delta x_{\text{Area}}, \Delta y_{\text{Area}}$	≤ 2 GHz: ≤ 15 mm 2 – 3 GHz: ≤ 12 mm	3 – 4 GHz: ≤ 12 mm 4 – 6 GHz: ≤ 10 mm
	When the x or y dimension of the test device, in the measurement plane orientation, is smaller than the above, the measurement resolution must be ≤ the corresponding x or y dimension of the test device with at least one measurement point on the test device.	

### Zoom Scan

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

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

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

### Volume Scan Procedures

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

### Power Drift Monitoring

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



## 7 Main Test Equipment

Name of Equipment	Manufacturer	Type/Model	Serial Number	Last Cal.	Cal. Due Date
Network Analyzer	Agilent	E5071B	MY42404014	2022-05-14	2023-05-13
Dielectric Probe Kit	Agilent	85070E	US44020115	/	/
Power Meter	Agilent	E4417A	GB41291714	2022-05-14	2023-05-13
Power Sensor	Agilent	N8481H	MY50350004	2022-05-14	2023-05-13
Power Sensor	Agilent	E9327A	US40441622	2022-05-14	2023-05-13
Power Sensor	Agilent	NRP18S	101955	2022-05-14	2023-05-13
Signal Generator	Agilent	N5181A	MY50140143	2022-05-14	2023-05-13
Dual Directional Coupler	UCL	UCL-DDC0 56G-S	20010600118	/	/
Amplifier	INDEXSAR	TPA-005060 G01	13030502	2022-05-14	2023-05-13
Wireless Communication Tester	Anritsu	MT8820C	6201342015	2021-12-12	2022-12-11
Wireless Communication Tester	Agilent	E5515C	MY48360988	2021-12-12	2022-12-11
Wireless Communication Tester	R&S	CMW 500	146734	2022-05-14	2023-05-13
E-field Probe	SPEAG	EX3DV4	3677	2022-07-08	2023-07-07
DAE	SPEAG	DAE4	1317	2022-06-13	2023-06-12
Validation Kit 750MHz	SPEAG	D750V3	1045	2020-08-28	2023-08-27
Validation Kit 835MHz	SPEAG	D835V2	4d020	2020-08-28	2023-08-27
Validation Kit 1750MHz	SPEAG	D1750V2	1033	2020-02-25	2023-02-24
Validation Kit 1900MHz	SPEAG	D1900V2	5d060	2020-08-27	2023-08-26
Validation Kit 2450MHz	SPEAG	D2450V2	786	2020-08-27	2023-08-26
Validation Kit 2600MHz	SPEAG	D2600V2	1025	2021-04-23	2024-04-22
Validation Kit 5GHz	SPEAG	D5GHzV2	1151	2020-02-27	2023-02-26
Software for Tissue	Agilent	85070	/	/	/
Temperature Probe	Tianjin jinming	JM222	381	2022-05-14	2023-05-13
Twin SAM Phantom	SPEAG	SAM1	1534	/	/
Hygrothermograph	Anymetr	HTC - 1	TY2020A003	2022-05-14	2023-05-13
TX90 XL	SPEAG	Staubli TX90 XL	/	/	/
Software for Test	SPEAG	DASY52	52.10.4.1527	/	/



## 8 Tissue Dielectric Parameter Measurements & System Check

### 8.1 Tissue Verification

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

#### Target values

Frequency (MHz)	$\epsilon_r$	$\sigma(\text{s/m})$
750	41.9	0.89
835	41.5	0.90
1750	40.1	1.37
1900	40.0	1.40
2450	39.2	1.80
2600	39.0	1.96
5250	35.9	4.71
5600	35.5	5.07
5750	35.4	5.22

**Measurements results**

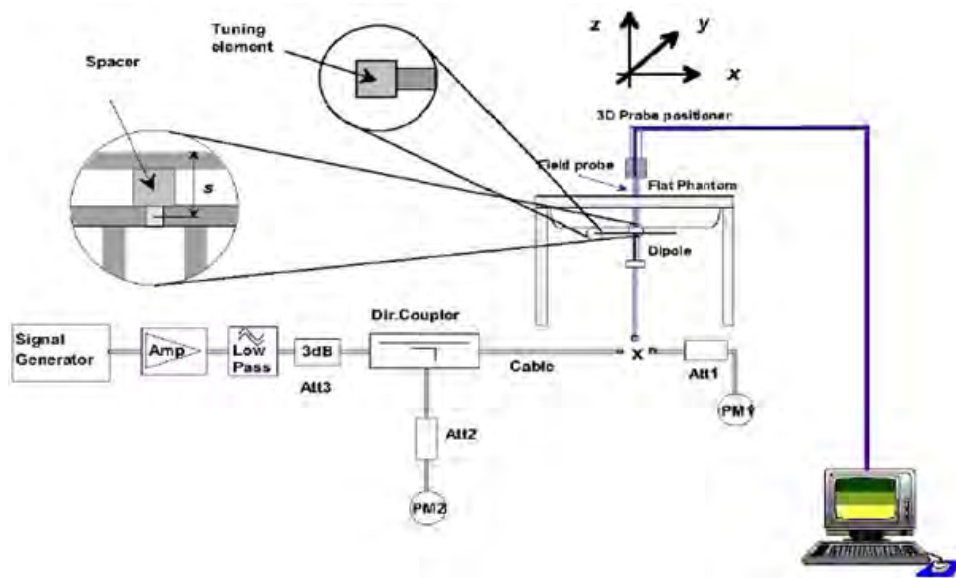
Frequency (MHz)	Test Date	Temp °C	Measured Dielectric Parameters		Target Dielectric Parameters		Limit (Within ±5%)	
			$\epsilon_r$	$\sigma$ (s/m)	$\epsilon_r$	$\sigma$ (s/m)	Dev $\epsilon_r$ (%)	Dev $\sigma$ (%)
750	2022/10/11	21.5	42.3	0.88	41.9	0.89	0.95	-1.12
835	2022/10/13	21.5	41.4	0.88	41.5	0.90	-0.24	-2.22
	2022/10/14	21.5	41.3	0.87	41.5	0.90	-0.48	-3.33
	2022/10/15	21.5	41.4	0.92	41.5	0.90	-0.24	2.22
	2022/10/17	21.5	41.3	0.89	41.5	0.90	-0.48	-1.11
	2022/10/18	21.5	41.4	0.92	41.5	0.90	-0.24	2.22
1750	2022/10/12	21.5	40.2	1.34	40.1	1.37	0.25	-2.19
	2022/10/16	21.5	40.1	1.34	40.1	1.37	0.00	-2.19
1900	2022/10/19	21.5	40.1	1.41	40.0	1.40	0.25	0.71
	2022/10/20	21.5	40.2	1.43	40.0	1.40	0.50	2.14
	2022/10/21	21.5	40.0	1.40	40.0	1.40	0.00	0.00
2450	2022/10/22	21.5	38.6	1.81	39.2	1.80	-1.53	0.56
2600	2022/10/24	21.5	38.2	2.01	39.0	1.96	-2.05	2.55
	2022/10/25	21.5	38.4	1.94	39.0	1.96	-1.54	-1.02
	2022/10/26	21.5	38.3	1.99	39.0	1.96	-1.79	1.53
	2022/10/27	21.5	38.5	1.95	39.0	1.96	-1.28	-0.51
	2022/10/28	21.5	38.2	1.96	39.0	1.96	-2.05	0.00
5250	2022/10/23	21.5	35.5	4.80	35.9	4.71	-1.11	1.91
	2022/10/31	21.5	35.7	4.74	35.9	4.71	-0.56	0.64
5600	2022/10/29	21.5	34.2	5.21	35.5	5.07	-3.66	2.76
5750	2022/10/30	21.5	34.9	5.21	35.4	5.22	-1.41	-0.19

Note: The depth of tissue-equivalent liquid in a phantom must be  $\geq 15.0$  cm for SAR measurements  $\leq 3$  GHz and  $\geq 10.0$  cm for measurements  $> 3$  GHz.

## 8.2 System Check

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

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



Picture 1 System Check setup



Picture 2 Setup Photo

**Justification for Extended SAR Dipole Calibrations**

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

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



## System Check results

Frequency (MHz)	Test Date	Temp °C	250mW Measured SAR <sub>1g</sub> (W/kg)	1W Normalized SAR <sub>1g</sub> (W/kg)	1W Target SAR <sub>1g</sub> (W/kg)	Δ % (Limit ±10%)	Plot No.
750	2022/10/11	21.5	2.13	8.52	8.37	1.79	1
835	2022/10/13	21.5	2.44	9.76	9.65	1.14	2
	2022/10/14	21.5	2.46	9.84	9.65	1.97	3
	2022/10/15	21.5	2.43	9.72	9.65	0.73	4
	2022/10/17	21.5	2.51	10.04	9.65	4.04	5
	2022/10/18	21.5	2.43	9.72	9.65	0.73	6
1750	2022/10/12	21.5	8.95	35.80	35.90	-0.28	7
	2022/10/16	21.5	9.11	36.44	35.90	1.50	8
1900	2022/10/19	21.5	9.88	39.52	39.50	0.05	9
	2022/10/20	21.5	9.85	39.40	39.50	-0.25	10
	2022/10/21	21.5	9.55	38.20	39.50	-3.29	11
2450	2022/10/22	21.5	13.70	54.80	52.30	4.78	12
2600	2022/10/24	21.5	13.90	55.60	56.10	-0.89	13
	2022/10/25	21.5	13.88	55.52	56.10	-1.03	14
	2022/10/26	21.5	13.94	55.76	56.10	-0.61	15
	2022/10/27	21.5	13.90	55.60	56.10	-0.89	16
	2022/10/28	21.5	13.90	55.60	56.10	-0.89	17
Frequency (MHz)	Test Date	Temp °C	100mW Measured SAR <sub>1g</sub> (W/kg)	1W Normalized SAR <sub>1g</sub> (W/kg)	1W Target SAR <sub>1g</sub> (W/kg)	Δ % (Limit ±10%)	Plot No.
5250	2022/10/23	21.5	7.87	78.70	78.00	0.90	18
	2022/10/31	21.5	7.54	75.40	78.00	-3.33	19
5600	2022/10/29	21.5	7.67	76.70	80.50	-4.72	20
5750	2022/10/30	21.5	7.66	76.60	77.40	-1.03	21

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

### 8.3 SAR System Validation

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

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

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

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

## 9 Normal and Maximum Output Power

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

### 9.1 GSM Mode

#### Low - Antenna

GSM 850 DSI1&DSI4		Burst-Averaged Output Power(dBm)				Division Factors	Frame-Averaged Output Power(dBm)			
		Tune-up	Channel/Frequency(MHz)				Tune-up	Channel/Frequency(MHz)		
		MAX	128 /824.2	190 /836.6	251 /848.8		MAX	128 /824.2	190 /836.6	251 /848.8
GSM	CS	33.50	31.73	31.78	31.66	9.03	24.47	22.70	22.75	22.63
GPRS/ EGPRS (GMSK)	1 Tx Slot	33.50	31.79	31.74	31.72	9.03	24.47	22.76	22.71	22.69
	2 Tx Slots	30.50	29.47	29.39	29.40	6.02	<b>24.48</b>	23.45	23.37	23.38
	3 Tx Slots	28.00	26.42	26.32	26.29	4.26	23.74	22.16	22.06	22.03
	4 Tx Slots	27.00	25.48	25.36	25.36	3.01	23.99	22.47	22.35	22.35
EGPRS (8PSK)	1 Tx Slot	27.50	26.61	26.89	26.37	9.03	18.47	17.58	17.86	17.34
	2 Tx Slots	24.50	22.94	23.06	22.91	6.02	18.48	16.92	17.04	16.89
	3 Tx Slots	21.00	20.07	20.17	19.86	4.26	16.74	15.81	15.91	15.60
	4 Tx Slots	20.00	18.64	18.54	18.47	3.01	16.99	15.63	15.53	15.46
GSM 850 Full Power&DSI2		Burst-Averaged Output Power(dBm)				Division Factors	Frame-Averaged Output Power(dBm)			
		Tune-up	Channel/Frequency(MHz)				Tune-up	Channel/Frequency(MHz)		
		MAX	128 /824.2	190 /836.6	251 /848.8		MAX	128 /824.2	190 /836.6	251 /848.8
GSM	CS	33.50	31.73	31.78	31.66	9.03	24.47	22.70	22.75	22.63
GPRS/ EGPRS (GMSK)	1 Tx Slot	33.50	31.79	31.74	31.72	9.03	24.47	22.76	22.71	22.69
	2 Tx Slots	31.00	29.47	29.39	29.40	6.02	<b>24.98</b>	23.45	23.37	23.38
	3 Tx Slots	28.00	26.42	26.32	26.29	4.26	23.74	22.16	22.06	22.03
	4 Tx Slots	27.00	25.48	25.36	25.36	3.01	23.99	22.47	22.35	22.35
EGPRS (8PSK)	1 Tx Slot	27.50	26.61	26.89	26.37	9.03	18.47	17.58	17.86	17.34
	2 Tx Slots	24.50	22.94	23.06	22.91	6.02	18.48	16.92	17.04	16.89
	3 Tx Slots	21.50	20.07	20.17	19.86	4.26	17.24	15.81	15.91	15.60
	4 Tx Slots	20.00	18.64	18.54	18.47	3.01	16.99	15.63	15.53	15.46

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



GSM 1900 Full Power&DSI2		Burst-Averaged Output Power(dBm)				Division Factors	Frame-Averaged Output Power(dBm)			
		Tune-up	Channel/Frequency(MHz)				Tune-up	Channel/Frequency(MHz)		
		MAX	512 /1710.2	698 /1747.4	885 /1784.8		MAX	512 /1710.2	698 /1747.4	885 /1784.8
GSM	CS	31.00	29.49	29.75	29.64	9.03	<b>21.97</b>	20.46	20.72	20.61
GPRS/ EGPRS (GMSK)	1 Tx Slot	31.00	29.70	29.98	29.58	9.03	<b>21.97</b>	20.67	20.95	20.55
	2 Tx Slots	27.50	26.11	26.96	26.82	6.02	21.48	20.09	20.94	20.80
	3 Tx Slots	24.50	22.97	23.85	23.75	4.26	20.24	18.71	19.59	19.49
	4 Tx Slots	23.50	22.02	22.94	22.82	3.01	20.49	19.01	19.93	19.81
EGPRS (8PSK)	1 Tx Slot	27.00	25.43	25.72	25.60	9.03	17.97	16.40	16.69	16.57
	2 Tx Slots	24.00	22.65	22.74	22.61	6.02	17.98	16.63	16.72	16.59
	3 Tx Slots	21.50	19.90	19.73	19.65	4.26	17.24	15.64	15.47	15.39
	4 Tx Slots	20.50	18.80	18.61	18.84	3.01	17.49	15.79	15.60	15.83
GSM 1900 DSI1		Burst-Averaged Output Power(dBm)				Division Factors	Frame-Averaged Output Power(dBm)			
		Tune-up	Channel/Frequency(MHz)				Tune-up	Channel/Frequency(MHz)		
		MAX	512 /1850.2	661 /1880	810 /1909.8		MAX	512 /1850.2	661 /1880	810 /1909.8
GSM	CS	30.00	29.29	29.00	28.90	9.03	20.97	20.26	19.97	19.87
GPRS/ EGPRS (GMSK)	1 Tx Slot	30.00	29.24	29.05	28.87	9.03	20.97	20.21	20.02	19.84
	2 Tx Slots	27.50	26.11	26.02	25.99	6.02	<b>21.48</b>	20.09	20.00	19.97
	3 Tx Slots	24.50	22.97	22.87	22.89	4.26	20.24	18.71	18.61	18.63
	4 Tx Slots	23.50	22.02	21.97	21.99	3.01	20.49	19.01	18.96	18.98
EGPRS (8PSK)	1 Tx Slot	26.50	25.16	25.15	25.03	9.03	17.47	16.13	16.12	16.00
	2 Tx Slots	23.50	21.79	22.05	22.35	6.02	17.48	15.77	16.03	16.33
	3 Tx Slots	20.50	19.02	19.33	19.03	4.26	16.24	14.76	15.07	14.77
	4 Tx Slots	19.50	17.63	17.65	18.04	3.01	16.49	14.62	14.64	15.03
GSM 1900 DSI4		Burst-Averaged Output Power(dBm)				Division Factors	Frame-Averaged Output Power(dBm)			
		Tune-up	Channel/Frequency(MHz)				Tune-up	Channel/Frequency(MHz)		
		MAX	512 /1850.2	661 /1880	810 /1909.8		MAX	512 /1850.2	661 /1880	810 /1909.8
GSM	CS	28.50	27.79	27.64	27.56	9.03	19.47	18.76	18.61	18.53
GPRS/ EGPRS (GMSK)	1 Tx Slot	28.50	27.80	27.63	27.55	9.03	19.47	18.77	18.60	18.52
	2 Tx Slots	26.00	24.61	24.50	24.52	6.02	<b>19.98</b>	18.59	18.48	18.50
	3 Tx Slots	23.00	21.60	21.51	21.59	4.26	18.74	17.34	17.25	17.33
	4 Tx Slots	22.00	20.61	20.53	20.66	3.01	18.99	17.60	17.52	17.65
EGPRS (8PSK)	1 Tx Slot	26.50	24.73	24.55	24.81	9.03	17.47	15.70	15.52	15.78
	2 Tx Slots	23.50	21.66	21.62	21.82	6.02	17.48	15.64	15.60	15.80
	3 Tx Slots	20.50	18.56	18.53	18.78	4.26	16.24	14.30	14.27	14.52
	4 Tx Slots	19.50	17.60	17.55	17.52	3.01	16.49	14.59	14.54	14.51





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

**Upper- Antenna**

GSM 850 Full Power		Burst-Averaged Output Power(dBm)				Division Factors	Frame-Averaged Output Power(dBm)			
		Tune-up	Channel/Frequency(MHz)				Tune-up	Channel/Frequency(MHz)		
		MAX	128 /824.2	190 /836.6	251 /848.8		MAX	128 /824.2	190 /836.6	251 /848.8
GSM	CS	33.50	32.51	32.45	32.31	9.03	24.47	23.48	23.42	23.28
GPRS/EGPRS (GMSK)	1 Tx Slot	33.50	32.50	32.45	32.30	9.03	24.47	23.47	23.42	23.27
	2 Tx Slots	31.00	30.14	30.08	29.96	6.02	<b>24.98</b>	24.12	24.06	23.94
	3 Tx Slots	28.00	27.04	26.97	26.81	4.26	23.74	22.78	22.71	22.55
	4 Tx Slots	27.00	26.08	26.00	25.87	3.01	23.99	23.07	22.99	22.86
EGPRS (8PSK)	1 Tx Slot	28.00	26.34	27.07	26.65	9.03	18.97	17.31	18.04	17.62
	2 Tx Slots	25.00	23.11	23.43	23.38	6.02	18.98	17.09	17.41	17.36
	3 Tx Slots	21.50	20.39	20.09	19.93	4.26	17.24	16.13	15.83	15.67
	4 Tx Slots	20.50	19.32	18.99	18.93	3.01	17.49	16.31	15.98	15.92
GSM 850 DSI1		Burst-Averaged Output Power(dBm)				Division Factors	Frame-Averaged Output Power(dBm)			
		Tune-up	Channel/Frequency(MHz)				Tune-up	Channel/Frequency(MHz)		
		MAX	128 /824.2	190 /836.6	251 /848.8		MAX	128 /824.2	190 /836.6	251 /848.8
GSM	CS	33.50	32.51	32.45	32.31	9.03	24.47	23.48	23.42	23.28
GPRS/EGPRS (GMSK)	1 Tx Slot	33.50	32.50	32.45	32.30	9.03	24.47	23.47	23.42	23.27
	2 Tx Slots	30.50	30.14	30.08	29.96	6.02	<b>24.48</b>	24.12	24.06	23.94
	3 Tx Slots	28.00	27.04	26.97	26.81	4.26	23.74	22.78	22.71	22.55
	4 Tx Slots	27.00	26.08	26.00	25.87	3.01	23.99	23.07	22.99	22.86
EGPRS (8PSK)	1 Tx Slot	28.00	26.34	27.07	26.65	9.03	18.97	17.31	18.04	17.62
	2 Tx Slots	25.00	23.11	23.43	23.38	6.02	18.98	17.09	17.41	17.36
	3 Tx Slots	21.50	20.39	20.09	19.93	4.26	17.24	16.13	15.83	15.67
	4 Tx Slots	20.50	19.32	18.99	18.93	3.01	17.49	16.31	15.98	15.92
GSM 850 DSI4		Burst-Averaged Output Power(dBm)				Division Factors	Frame-Averaged Output Power(dBm)			
		Tune-up	Channel/Frequency(MHz)				Tune-up	Channel/Frequency(MHz)		
		MAX	128 /824.2	190 /836.6	251 /848.8		MAX	128 /824.2	190 /836.6	251 /848.8
GSM	CS	33.00	31.84	31.77	31.63	9.03	23.97	22.81	22.74	22.60
GPRS/EGPRS (GMSK)	1 Tx Slot	33.00	31.83	31.77	31.63	9.03	23.97	22.80	22.74	22.60
	2 Tx Slots	30.00	29.06	28.99	28.86	6.02	<b>23.98</b>	23.04	22.97	22.84
	3 Tx Slots	27.50	26.08	25.99	25.87	4.26	23.24	21.82	21.73	21.61
	4 Tx Slots	26.50	24.99	24.90	24.73	3.01	23.49	21.98	21.89	21.72



EGPRS (8PSK)	1 Tx Slot	26.50	25.18	24.84	24.78	9.03	17.47	16.15	15.81	15.75
	2 Tx Slots	23.00	21.70	21.44	21.35	6.02	16.98	15.68	15.42	15.33
	3 Tx Slots	20.00	18.53	18.39	18.43	4.26	15.74	14.27	14.13	14.17
	4 Tx Slots	19.00	17.54	17.21	17.41	3.01	15.99	14.53	14.20	14.40

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

GSM 1900 Full Power		Burst-Averaged Output Power(dBm)				Division Factors	Frame-Averaged Output Power(dBm)			
		Tune-up	Channel/Frequency(MHz)				Tune-up	Channel/Frequency(MHz)		
		MAX	512 /1710.2	698 /1747.4	885 /1784.8		MAX	512 /1710.2	698 /1747.4	885 /1784.8
GSM	CS	31.00	29.90	29.75	29.53	9.03	21.97	20.87	20.72	20.50
GPRS/ EGPRS (GMSK)	1 Tx Slot	31.00	29.90	29.74	29.52	9.03	21.97	20.87	20.71	20.49
	2 Tx Slots	28.00	26.76	26.54	26.57	6.02	<b>21.98</b>	20.74	20.52	20.55
	3 Tx Slots	25.00	23.59	23.43	23.44	4.26	20.74	19.33	19.17	19.18
	4 Tx Slots	24.00	22.66	22.50	22.53	3.01	20.99	19.65	19.49	19.52
EGPRS (8PSK)	1 Tx Slot	27.50	25.53	25.65	25.62	9.03	18.47	16.50	16.62	16.59
	2 Tx Slots	24.50	22.70	22.75	22.52	6.02	18.48	16.68	16.73	16.50
	3 Tx Slots	21.50	19.62	19.65	19.75	4.26	17.24	15.36	15.39	15.49
	4 Tx Slots	20.50	19.26	19.30	18.83	3.01	17.49	16.25	16.29	15.82
GSM 1900 DSI1		Burst-Averaged Output Power(dBm)				Division Factors	Frame-Averaged Output Power(dBm)			
		Tune-up	Channel/Frequency(MHz)				Tune-up	Channel/Frequency(MHz)		
		MAX	512 /1850.2	661 /1880	810 /1909.8		MAX	512 /1850.2	661 /1880	810 /1909.8
GSM	CS	29.50	29.43	29.25	29.07	9.03	20.47	20.40	20.22	20.04
GPRS/ EGPRS (GMSK)	1 Tx Slot	29.50	29.43	29.25	29.08	9.03	20.47	20.40	20.22	20.05
	2 Tx Slots	27.00	26.23	26.02	26.01	6.02	<b>20.98</b>	20.21	20.00	19.99
	3 Tx Slots	24.00	23.14	22.96	22.99	4.26	19.74	18.88	18.70	18.73
	4 Tx Slots	23.00	22.11	21.97	22.04	3.01	19.99	19.10	18.96	19.03
EGPRS (8PSK)	1 Tx Slot	26.50	25.25	25.03	25.27	9.03	17.47	16.22	16.00	16.24
	2 Tx Slots	23.50	22.62	22.13	22.06	6.02	17.48	16.60	16.11	16.04
	3 Tx Slots	20.50	19.63	18.81	19.34	4.26	16.24	15.37	14.55	15.08
	4 Tx Slots	19.50	18.28	17.64	17.77	3.01	16.49	15.27	14.63	14.76
GSM 1900 DSI4		Burst-Averaged Output Power(dBm)				Division Factors	Frame-Averaged Output Power(dBm)			
		Tune-up	Channel/Frequency(MHz)				Tune-up	Channel/Frequency(MHz)		
		MAX	512 /1850.2	661 /1880	810 /1909.8		MAX	512 /1850.2	661 /1880	810 /1909.8
GSM	CS	26.00	25.15	24.97	24.97	9.03	16.97	16.12	15.94	15.94
GPRS/	1 Tx Slot	26.00	25.14	24.96	24.97	9.03	16.97	16.11	15.93	15.94



EGPRS (GMSK)	2 Tx Slots	23.50	22.11	21.98	22.05	6.02	<b>17.48</b>	16.09	15.96	16.03
	3 Tx Slots	20.50	19.08	19.00	19.24	4.26	16.24	14.82	14.74	14.98
	4 Tx Slots	19.50	18.08	18.06	18.28	3.01	16.49	15.07	15.05	15.27
EGPRS (8PSK)	1 Tx Slot	23.00	21.78	21.35	21.45	9.03	13.97	12.75	12.32	12.42
	2 Tx Slots	20.00	18.62	18.24	18.41	6.02	13.98	12.60	12.22	12.39
	3 Tx Slots	17.00	15.46	15.38	15.41	4.26	12.74	11.20	11.12	11.15
	4 Tx Slots	16.00	14.57	14.42	14.27	3.01	12.99	11.56	11.41	11.26

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

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

## 9.2 WCDMA Mode

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

### Low - Antenna

WCDMA Band II					
Full Power&DSI2		Maximum Output Power (dBm)			
		Channel/Frequency(MHz)			Tune-up
		9262/1852.4	9400/1880	9538/1907.6	
RMC	12.2k	23.19	23.19	23.32	25.00
AMR	12.2k	23.25	23.07	23.16	25.00
HSDPA	Subtest 1	22.17	22.21	22.26	23.50
	Subtest 2	22.11	22.19	22.18	23.50
	Subtest 3	21.67	21.65	21.78	23.00
	Subtest 4	21.69	21.81	21.70	23.00
HSUPA	Subtest 1	20.81	20.85	20.96	22.00
	Subtest 2	20.19	20.31	20.20	21.50
	Subtest 3	20.85	20.53	20.80	22.50
	Subtest 4	19.73	19.75	19.78	21.00
	Subtest 5	21.35	21.05	21.18	22.50
DC-HSDPA	Subtest 1	22.09	22.21	22.30	23.50
	Subtest 2	22.05	22.13	22.46	23.50
	Subtest 3	21.57	21.73	21.90	23.00
	Subtest 4	21.61	21.69	21.74	23.00
WCDMA Band II					
DSI1		Maximum Output Power (dBm)			
		Channel/Frequency(MHz)			Tune-up
		9262/1852.4	9400/1880	9538/1907.6	
RMC	12.2k	22.84	22.88	22.90	24.50
AMR	12.2k	22.72	22.80	22.88	24.50
HSDPA	Subtest 1	21.98	21.74	21.76	23.50
	Subtest 2	21.88	21.72	22.04	23.50
	Subtest 3	21.50	21.54	21.30	23.00
	Subtest 4	21.20	21.26	21.40	23.00
HSUPA	Subtest 1	20.10	20.06	20.13	22.00
	Subtest 2	19.98	20.00	19.84	21.50
	Subtest 3	20.92	20.90	20.84	22.00
	Subtest 4	19.42	19.50	19.42	21.00
	Subtest 5	20.76	20.82	20.78	22.50
DC-HSDPA	Subtest 1	21.86	22.04	21.82	23.50
	Subtest 2	21.80	21.88	21.86	23.50
	Subtest 3	21.36	21.32	21.48	23.00



	Subtest 4	21.36	21.40	21.42	23.00
WCDMA Band II					
DSI4		Maximum Output Power (dBm)			
		Channel/Frequency(MHz)			Tune-up
		9262/1852.4	9400/1880	9538/1907.6	
RMC	12.2k	20.37	20.38	20.40	21.50
AMR	12.2k	20.39	20.26	20.42	21.50
HSDPA	Subtest 1	19.53	19.34	19.54	20.50
	Subtest 2	19.43	19.40	19.48	20.50
	Subtest 3	18.79	18.82	19.04	20.00
	Subtest 4	18.99	18.76	18.92	20.00
HSUPA	Subtest 1	17.41	17.52	17.44	19.00
	Subtest 2	17.23	17.48	17.28	18.50
	Subtest 3	18.39	18.48	18.40	19.00
	Subtest 4	16.79	16.84	16.88	18.00
	Subtest 5	18.45	18.40	18.34	19.50
DC-HSDPA	Subtest 1	19.53	19.24	19.40	20.50
	Subtest 2	19.31	19.44	19.36	20.50
	Subtest 3	19.01	18.82	18.88	20.00
	Subtest 4	18.77	18.82	19.00	20.00
WCDMA Band IV					
Full Power&DSI2		Maximum Output Power (dBm)			
		Channel/Frequency(MHz)			Tune-up
		1312/1712.4	1413/1732.6	1513/1752.6	
RMC	12.2k	23.30	23.40	23.31	25.00
AMR	12.2k	23.36	23.54	23.15	25.00
HSDPA	Subtest 1	22.18	22.50	22.23	23.50
	Subtest 2	22.38	22.56	22.27	23.50
	Subtest 3	21.76	21.98	21.69	23.00
	Subtest 4	21.84	22.00	21.85	23.00
HSUPA	Subtest 1	20.72	20.86	20.69	22.00
	Subtest 2	20.20	20.48	20.29	21.50
	Subtest 3	20.66	20.74	20.71	22.00
	Subtest 4	19.80	19.80	19.81	21.00
	Subtest 5	21.18	21.50	21.43	22.50
DC-HSDPA	Subtest 1	22.28	22.50	22.33	23.50
	Subtest 2	22.36	22.40	22.45	23.50
	Subtest 3	21.92	21.76	21.71	23.00
	Subtest 4	21.66	21.80	21.75	23.00



WCDMA Band IV					
DSI1		Maximum Output Power (dBm)			
		Channel/Frequency(MHz)			Tune-up
		1312/1712.4	1413/1732.6	1513/1752.6	
RMC	12.2k	23.00	23.03	22.99	24.50
AMR	12.2k	22.86	22.91	22.85	24.50
HSDPA	Subtest 1	22.14	21.91	21.95	23.50
	Subtest 2	21.84	22.13	22.15	23.50
	Subtest 3	21.42	21.67	21.37	23.00
	Subtest 4	21.60	21.69	21.65	23.00
HSUPA	Subtest 1	20.60	20.59	20.55	22.00
	Subtest 2	19.86	20.15	20.07	21.50
	Subtest 3	20.84	20.97	21.03	22.00
	Subtest 4	19.44	19.39	19.43	21.00
	Subtest 5	20.96	21.15	21.09	22.50
DC-HSDPA	Subtest 1	21.90	22.15	21.99	23.50
	Subtest 2	21.84	21.97	21.83	23.50
	Subtest 3	21.44	21.65	21.57	23.00
	Subtest 4	21.52	21.63	21.33	23.00
WCDMA Band IV					
DSI4		Maximum Output Power (dBm)			
		Channel/Frequency(MHz)			Tune-up
		1312/1712.4	1413/1732.6	1513/1752.6	
RMC	12.2k	20.00	20.00	19.96	21.00
AMR	12.2k	20.14	19.96	19.94	21.00
HSDPA	Subtest 1	19.14	19.14	18.86	20.00
	Subtest 2	18.90	19.12	19.10	20.00
	Subtest 3	18.36	18.58	18.60	19.50
	Subtest 4	18.54	18.44	18.60	19.50
HSUPA	Subtest 1	17.10	16.84	16.90	18.50
	Subtest 2	17.12	17.10	16.96	18.00
	Subtest 3	17.90	17.86	17.84	18.50
	Subtest 4	16.40	16.58	16.56	17.50
	Subtest 5	18.06	18.08	17.90	19.00
DC-HSDPA	Subtest 1	18.92	19.04	19.00	20.00
	Subtest 2	18.92	19.00	18.92	20.00
	Subtest 3	18.58	18.66	18.56	19.50
	Subtest 4	18.46	18.34	18.32	19.50



WCDMA Band V					
Full Power&DSI2		Maximum Output Power (dBm)			
		Channel/Frequency(MHz)			Tune-up
		4132/826.4	4183/836.6	4233/846.6	
RMC	12.2k	23.19	23.18	23.13	25.00
AMR	12.2k	23.11	23.06	23.13	25.00
HSDPA	Subtest 1	22.03	22.16	22.03	23.50
	Subtest 2	22.07	22.06	21.99	23.50
	Subtest 3	21.83	21.56	21.57	23.00
	Subtest 4	21.81	21.72	21.69	23.00
HSUPA	Subtest 1	20.35	20.12	20.29	22.00
	Subtest 2	20.31	20.34	19.97	21.50
	Subtest 3	21.03	21.06	21.03	23.00
	Subtest 4	19.67	19.84	19.67	21.00
	Subtest 5	21.03	21.16	21.09	22.50
DC-HSDPA	Subtest 1	22.11	22.10	22.05	23.50
	Subtest 2	22.19	22.12	22.17	23.50
	Subtest 3	21.67	21.54	21.59	23.00
	Subtest 4	21.69	21.64	21.47	23.00
WCDMA Band V					
DS1&DSI4		Maximum Output Power (dBm)			
		Channel/Frequency(MHz)			Tune-up
		4132/826.4	4183/836.6	4233/846.6	
RMC	12.2k	23.15	23.17	23.09	24.50
AMR	12.2k	23.23	23.03	23.15	24.50
HSDPA	Subtest 1	22.15	22.27	22.09	23.50
	Subtest 2	22.05	22.01	22.15	23.50
	Subtest 3	21.61	21.57	21.45	23.00
	Subtest 4	21.67	21.55	21.47	23.00
HSUPA	Subtest 1	20.15	20.33	20.15	22.00
	Subtest 2	20.23	20.31	20.17	21.50
	Subtest 3	21.13	21.17	21.11	22.00
	Subtest 4	19.55	19.79	19.61	21.00
	Subtest 5	21.13	21.07	20.95	22.50
DC-HSDPA	Subtest 1	22.11	22.05	22.13	23.50
	Subtest 2	22.23	22.31	22.25	23.50
	Subtest 3	21.81	21.75	21.73	23.00
	Subtest 4	21.75	21.75	21.67	23.00

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





## Upper - Antenna

WCDMA Band II					
Full Power&DSI2		Maximum Output Power (dBm)			
		Channel/Frequency(MHz)			Tune-up
		9262/1852.4	9400/1880	9538/1907.6	
RMC	12.2k	23.02	23.27	23.39	25.00
AMR	12.2k	23.02	23.15	23.43	25.00
HSDPA	Subtest 1	22.00	22.23	22.31	23.50
	Subtest 2	21.98	22.17	22.31	23.50
	Subtest 3	21.66	21.83	21.93	23.00
	Subtest 4	21.40	21.81	21.81	23.00
HSUPA	Subtest 1	20.66	20.73	20.85	22.00
	Subtest 2	19.90	20.43	20.47	21.50
	Subtest 3	20.56	20.79	20.97	22.50
	Subtest 4	19.40	19.83	19.85	21.00
	Subtest 5	20.90	21.43	21.35	22.50
DC-HSDPA	Subtest 1	21.98	22.25	22.33	23.50
	Subtest 2	22.14	22.39	22.33	23.50
	Subtest 3	21.50	21.87	21.91	23.00
	Subtest 4	21.38	21.67	21.85	23.00
WCDMA Band II					
DSI1		Maximum Output Power (dBm)			
		Channel/Frequency(MHz)			Tune-up
		9262/1852.4	9400/1880	9538/1907.6	
RMC	12.2k	20.75	20.78	20.87	22.00
AMR	12.2k	20.87	20.84	20.71	22.00
HSDPA	Subtest 1	19.85	19.62	20.01	21.00
	Subtest 2	19.89	19.68	20.03	21.00
	Subtest 3	19.21	19.42	19.47	20.50
	Subtest 4	19.41	19.18	19.51	20.50
HSUPA	Subtest 1	18.25	18.32	18.43	19.50
	Subtest 2	17.65	17.92	17.79	19.00
	Subtest 3	18.29	18.18	18.39	19.50
	Subtest 4	17.41	17.30	17.33	18.50
	Subtest 5	18.73	18.76	18.99	20.00
DC-HSDPA	Subtest 1	19.73	19.64	19.89	21.00
	Subtest 2	19.75	19.86	19.79	21.00
	Subtest 3	19.11	19.18	19.27	20.50
	Subtest 4	19.13	19.36	19.47	20.50



WCDMA Band II					
DSI4		Maximum Output Power (dBm)			
		Channel/Frequency(MHz)			Tune-up
		9262/1852.4	9400/1880	9538/1907.6	
RMC	12.2k	20.27	20.38	20.38	20.50
AMR	12.2k	20.21	20.50	20.46	20.50
HSDPA	Subtest 1	19.17	19.22	19.30	19.50
	Subtest 2	19.21	19.28	19.42	19.50
	Subtest 3	18.93	18.80	18.84	19.00
	Subtest 4	18.71	18.88	18.74	19.00
HSUPA	Subtest 1	17.73	17.74	17.88	18.00
	Subtest 2	17.29	17.46	17.24	17.50
	Subtest 3	17.67	17.74	17.86	18.00
	Subtest 4	16.81	16.96	16.82	17.00
	Subtest 5	18.37	18.40	18.45	18.50
DC-HSDPA	Subtest 1	19.21	19.24	19.36	19.50
	Subtest 2	19.17	19.24	19.25	19.50
	Subtest 3	18.91	19.00	18.92	19.00
	Subtest 4	18.67	18.80	18.86	19.00
WCDMA Band IV					
Full Power&DSI2		Maximum Output Power (dBm)			
		Channel/Frequency(MHz)			Tune-up
		1312/1712.4	1413/1732.6	1513/1752.6	
RMC	12.2k	23.37	23.47	23.36	24.50
AMR	12.2k	23.29	23.55	23.36	24.50
HSDPA	Subtest 1	22.35	22.45	22.36	23.00
	Subtest 2	22.35	22.45	22.22	23.00
	Subtest 3	21.83	21.85	21.88	22.50
	Subtest 4	21.89	21.81	21.98	22.50
HSUPA	Subtest 1	20.87	21.13	20.98	21.50
	Subtest 2	20.35	20.33	20.32	21.00
	Subtest 3	20.77	21.05	20.74	21.50
	Subtest 4	19.77	19.89	19.86	20.50
	Subtest 5	21.37	21.47	21.50	22.00
DC-HSDPA	Subtest 1	22.21	22.49	22.24	23.00
	Subtest 2	22.35	22.33	22.36	23.00
	Subtest 3	21.91	22.03	21.94	22.50
	Subtest 4	22.03	22.13	21.80	22.50



WCDMA Band IV					
DSI1		Maximum Output Power (dBm)			
		Channel/Frequency(MHz)			Tune-up
		1312/1712.4	1413/1732.6	1513/1752.6	
RMC	12.2k	18.78	18.85	18.72	20.00
AMR	12.2k	18.94	18.83	18.70	20.00
HSDPA	Subtest 1	17.82	17.87	17.66	19.00
	Subtest 2	17.68	17.97	17.80	19.00
	Subtest 3	17.24	17.45	17.08	18.50
	Subtest 4	17.12	17.27	17.28	18.50
HSUPA	Subtest 1	16.34	16.35	16.22	17.50
	Subtest 2	15.78	15.75	15.68	17.00
	Subtest 3	16.24	16.47	16.12	17.50
	Subtest 4	15.20	15.37	15.36	16.50
	Subtest 5	16.66	16.73	16.80	18.00
DC-HSDPA	Subtest 1	17.76	17.71	17.56	19.00
	Subtest 2	17.88	17.83	17.64	19.00
	Subtest 3	17.32	17.41	17.12	18.50
	Subtest 4	17.24	17.27	17.16	18.50
WCDMA Band IV					
DSI4		Maximum Output Power (dBm)			
		Channel/Frequency(MHz)			Tune-up
		1312/1712.4	1413/1732.6	1513/1752.6	
RMC	12.2k	18.18	18.24	18.29	19.50
AMR	12.2k	18.02	18.16	18.45	19.50
HSDPA	Subtest 1	17.34	17.30	17.31	18.50
	Subtest 2	17.14	17.38	17.21	18.50
	Subtest 3	16.68	16.82	16.65	18.00
	Subtest 4	16.60	16.64	16.73	18.00
HSUPA	Subtest 1	15.64	15.90	15.73	17.00
	Subtest 2	15.26	15.22	15.19	16.50
	Subtest 3	15.72	15.70	15.85	17.00
	Subtest 4	14.82	14.62	14.95	16.00
	Subtest 5	16.02	16.20	16.29	17.50
DC-HSDPA	Subtest 1	17.04	17.22	17.27	18.50
	Subtest 2	17.10	17.08	17.33	18.50
	Subtest 3	16.76	16.90	16.81	18.00
	Subtest 4	16.80	16.74	16.69	18.00



WCDMA Band V					
Full Power&DSI2		Maximum Output Power (dBm)			
		Channel/Frequency(MHz)			Tune-up
		4132/826.4	4183/836.6	4233/846.6	
RMC	12.2k	23.01	23.06	23.02	25.00
AMR	12.2k	23.07	23.18	23.01	25.00
HSDPA	Subtest 1	21.85	22.14	21.96	23.50
	Subtest 2	21.93	22.22	22.02	23.50
	Subtest 3	21.43	21.66	21.40	23.00
	Subtest 4	21.59	21.54	21.48	23.00
HSUPA	Subtest 1	20.07	20.06	20.03	22.00
	Subtest 2	19.91	20.02	19.98	21.50
	Subtest 3	21.03	21.18	21.14	23.00
	Subtest 4	19.45	19.64	19.46	21.00
	Subtest 5	21.15	21.14	20.88	22.50
DC-HSDPA	Subtest 1	21.99	21.90	22.06	23.50
	Subtest 2	21.93	22.14	22.12	23.50
	Subtest 3	21.41	21.56	21.58	23.00
	Subtest 4	21.53	21.66	21.64	23.00
WCDMA Band V					
DSI1		Maximum Output Power (dBm)			
		Channel/Frequency(MHz)			Tune-up
		4132/826.4	4183/836.6	4233/846.6	
RMC	12.2k	22.08	22.03	22.05	23.50
AMR	12.2k	22.06	21.97	21.89	23.50
HSDPA	Subtest 1	21.16	21.19	21.19	22.50
	Subtest 2	21.14	20.91	20.95	22.50
	Subtest 3	20.66	20.39	20.53	22.00
	Subtest 4	20.42	20.65	20.69	22.00
HSUPA	Subtest 1	19.56	19.63	19.61	21.00
	Subtest 2	19.02	19.19	19.13	20.50
	Subtest 3	19.64	19.43	19.47	21.00
	Subtest 4	18.72	18.37	18.47	20.00
	Subtest 5	20.18	20.09	19.89	21.50
DC-HSDPA	Subtest 1	20.96	21.11	21.01	22.50
	Subtest 2	21.06	20.99	21.03	22.50
	Subtest 3	20.52	20.67	20.61	22.00
	Subtest 4	20.52	20.43	20.61	22.00



WCDMA Band V					
DSI4		Maximum Output Power (dBm)			
		Channel/Frequency(MHz)			Tune-up
		4132/826.4	4183/836.6	4233/846.6	
RMC	12.2k	22.95	22.93	22.86	24.50
AMR	12.2k	22.99	23.09	22.78	24.50
HSDPA	Subtest 1	21.93	21.97	21.92	23.50
	Subtest 2	21.95	22.07	21.88	23.50
	Subtest 3	21.61	21.37	21.22	23.00
	Subtest 4	21.43	21.51	21.52	23.00
HSUPA	Subtest 1	20.39	20.33	20.36	22.00
	Subtest 2	19.85	19.99	19.90	21.50
	Subtest 3	20.33	20.53	20.20	22.00
	Subtest 4	19.31	19.53	19.42	21.00
	Subtest 5	21.09	20.91	20.94	22.50
DC-HSDPA	Subtest 1	22.05	21.91	21.86	23.50
	Subtest 2	22.09	21.77	21.94	23.50
	Subtest 3	21.49	21.31	21.30	23.00
	Subtest 4	21.57	21.53	21.32	23.00

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

### 9.3 LTE Mode

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

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

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

#### Low- Antenna

LTE Band2							
Full Power&DSI2				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				18607/1850.7	18900/1880	19193/1909.3	
1.4MHz	QPSK	1	0	23.14	23.18	23.10	25.00
		1	2	23.36	23.36	23.31	25.00
		1	5	23.08	23.05	23.13	25.00
		3	0	23.13	23.27	23.27	25.00
		3	2	23.21	23.29	23.32	25.00
		3	3	23.15	23.15	23.18	25.00
	16QAM	6	0	22.19	22.28	22.30	24.00
		1	0	22.45	22.53	22.42	24.00
		1	2	22.65	22.67	22.61	24.00
		1	5	22.35	22.36	22.43	24.00
		3	0	22.20	22.26	22.32	24.00
		3	2	22.32	22.34	22.36	24.00
		3	3	22.23	22.22	22.17	24.00
	64QAM	6	0	21.22	21.34	21.36	23.00
		1	0	21.42	21.38	21.47	23.00
		1	2	21.67	21.73	21.69	23.00
		1	5	21.31	21.42	21.48	23.00
		3	0	21.20	21.26	21.25	23.00
		3	2	21.30	21.27	21.31	23.00
		3	3	21.18	21.23	21.16	23.00
	6	0	20.24	20.31	20.35	22.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
3MHz	QPSK	1	0	18615/1851.5	18900/1880	19185/1908.5	





		1	7	23.34	23.39	23.35	25.00	
		1	14	23.11	23.10	23.17	25.00	
		8	0	22.23	22.39	22.40	24.00	
		8	4	22.33	22.39	22.44	24.00	
		8	7	22.25	22.26	22.28	24.00	
		15	0	22.19	22.32	22.33	24.00	
	16QAM	1	0	22.45	22.55	22.45	24.00	
		1	7	22.65	22.67	22.65	24.00	
		1	14	22.37	22.40	22.46	24.00	
		8	0	21.31	21.39	21.44	23.00	
		8	4	21.43	21.47	21.48	23.00	
		8	7	21.33	21.34	21.30	23.00	
	64QAM	15	0	21.25	21.38	21.39	23.00	
		1	0	21.45	21.40	21.50	23.00	
		1	7	21.70	21.73	21.71	23.00	
		1	14	21.33	21.41	21.51	23.00	
		8	0	20.31	20.39	20.37	22.00	
		8	4	20.41	20.40	20.43	22.00	
	5MHz	QPSK	8	7	20.28	20.35	20.29	22.00
			15	0	20.27	20.35	20.38	22.00
			1	0	23.13	23.20	23.09	25.00
1			13	23.32	23.35	23.32	25.00	
1			24	23.08	23.05	23.13	25.00	
12			0	22.20	22.34	22.36	24.00	
16QAM		12	6	22.31	22.35	22.39	24.00	
		12	13	22.23	22.24	22.24	24.00	
		25	0	22.19	22.31	22.31	24.00	
		1	0	22.45	22.51	22.42	24.00	
		1	13	22.65	22.65	22.62	24.00	
		1	24	22.34	22.38	22.42	24.00	
64QAM		12	0	21.29	21.35	21.41	23.00	
		12	6	21.40	21.42	21.44	23.00	
		12	13	21.30	21.29	21.26	23.00	
		25	0	21.23	21.34	21.34	23.00	
		1	0	21.42	21.40	21.47	23.00	
		1	13	21.67	21.75	21.68	23.00	
			1	24	21.34	21.39	21.47	23.00
			12	0	20.29	20.35	20.38	22.00
			12	6	20.38	20.35	20.39	22.00
	12		13	20.25	20.30	20.25	22.00	
	25		0	20.25	20.31	20.33	22.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up	
				18625/1852.5	18900/1880	19175/1907.5		



Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				18650/1855	18900/1880	19150/1905	
10MHz	QPSK	1	0	23.15	23.21	23.12	25.00
		1	25	23.35	23.40	23.36	25.00
		1	49	23.10	23.09	23.16	25.00
		25	0	22.23	22.39	22.40	24.00
		25	13	22.34	22.40	22.43	24.00
		25	25	22.25	22.28	22.29	24.00
		50	0	22.23	22.33	22.35	24.00
	16QAM	1	0	22.49	22.54	22.44	24.00
		1	25	22.69	22.69	22.65	24.00
		1	49	22.37	22.40	22.45	24.00
		25	0	21.32	21.40	21.45	23.00
		25	13	21.42	21.46	21.47	23.00
		25	25	21.33	21.34	21.30	23.00
		50	0	21.26	21.39	21.38	23.00
	64QAM	1	0	21.44	21.39	21.49	23.00
		1	25	21.70	21.75	21.71	23.00
		1	49	21.33	21.41	21.50	23.00
		25	0	20.32	20.40	20.38	22.00
		25	13	20.40	20.39	20.42	22.00
		25	25	20.28	20.35	20.29	22.00
		50	0	20.28	20.36	20.37	22.00
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
15MHz	QPSK	1	0	23.14	23.17	23.10	25.00
		1	38	23.33	23.39	23.33	25.00
		1	74	23.07	23.04	23.12	25.00
		36	0	22.21	22.35	22.37	24.00
		36	18	22.31	22.35	22.39	24.00
		36	39	22.22	22.25	22.25	24.00
		75	0	22.21	22.29	22.30	24.00
	16QAM	1	0	22.47	22.52	22.42	24.00
		1	38	22.67	22.66	22.63	24.00
		1	74	22.35	22.36	22.42	24.00
		36	0	21.29	21.38	21.42	23.00
		36	18	21.39	21.41	21.43	23.00
		36	39	21.31	21.30	21.27	23.00
		75	0	21.23	21.34	21.34	23.00
	64QAM	1	0	21.39	21.37	21.47	23.00
		1	38	21.68	21.72	21.69	23.00
		1	74	21.34	21.40	21.51	23.00
		36	0	20.31	20.42	20.39	22.00



Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				18700/1860	18900/1880	19100/1900	
20MHz	QPSK	36	18	20.38	20.36	20.41	22.00
		36	39	20.26	20.31	20.26	22.00
		75	0	20.25	20.31	20.33	22.00
		1	0	23.11	23.13	23.07	25.00
		1	50	23.32	23.35	23.31	25.00
		1	99	23.05	23.03	23.09	25.00
		50	0	22.18	22.30	22.33	24.00
	50	25	22.29	22.31	22.36	24.00	
	50	50	22.19	22.20	22.21	24.00	
	100	0	22.18	22.24	22.26	24.00	
	16QAM	1	0	22.44	22.48	22.37	24.00
		1	50	22.64	22.64	22.59	24.00
		1	99	22.32	22.33	22.40	24.00
		50	0	21.26	21.34	21.39	23.00
		50	25	21.36	21.39	21.40	23.00
		50	50	21.28	21.25	21.23	23.00
		100	0	21.21	21.30	21.31	23.00
	64QAM	1	0	21.37	21.33	21.42	23.00
		1	50	21.64	21.70	21.65	23.00
		1	99	21.28	21.34	21.45	23.00
		50	0	20.26	20.34	20.32	22.00
50		25	20.34	20.32	20.35	22.00	
50		50	20.23	20.26	20.22	22.00	
100		0	20.23	20.27	20.30	22.00	

LTE Band2							
DSI1				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				18607/1850.7	18900/1880	19193/1909.3	
1.4MHz	QPSK	1	0	23.14	23.26	23.15	24.50
		1	2	23.41	23.41	23.37	24.50
		1	5	23.07	23.13	23.20	24.50
		3	0	23.19	23.31	23.29	24.50
		3	2	23.26	23.33	23.36	24.50
		3	3	23.22	23.20	23.25	24.50
		6	0	22.24	22.34	22.36	23.50
	16QAM	1	0	22.47	22.55	22.45	23.50
		1	2	22.69	22.74	22.67	23.50
		1	5	22.37	22.42	22.45	23.50
		3	0	22.22	22.31	22.36	23.50
		3	2	22.35	22.38	22.40	23.50



Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up	
				18615/1851.5	18900/1880	19185/1908.5		
	64QAM	3	3	22.26	22.28	22.24	23.50	
		6	0	21.31	21.40	21.40	22.50	
		1	0	21.53	21.49	21.50	22.50	
		1	2	21.58	21.70	21.72	22.50	
		1	5	21.25	21.44	21.52	22.50	
		3	0	21.20	21.33	21.34	22.50	
		3	2	21.36	21.38	21.39	22.50	
		3	3	21.25	21.27	21.21	22.50	
		6	0	20.28	20.37	20.37	21.50	
3MHz	QPSK	1	0	23.16	23.30	23.18	24.50	
		1	7	23.39	23.44	23.41	24.50	
		1	14	23.10	23.18	23.24	24.50	
		8	0	22.29	22.43	22.42	23.50	
		8	4	22.38	22.43	22.48	23.50	
		8	7	22.32	22.31	22.35	23.50	
		15	0	22.24	22.38	22.39	23.50	
	16QAM	1	0	22.47	22.57	22.48	23.50	
		1	7	22.69	22.74	22.71	23.50	
		1	14	22.39	22.46	22.48	23.50	
		8	0	21.33	21.44	21.48	22.50	
		8	4	21.46	21.51	21.52	22.50	
		8	7	21.36	21.40	21.37	22.50	
		15	0	21.34	21.44	21.43	22.50	
	64QAM	1	0	21.56	21.51	21.53	22.50	
		1	7	21.61	21.70	21.74	22.50	
		1	14	21.27	21.43	21.55	22.50	
		8	0	20.31	20.46	20.46	21.50	
		8	4	20.47	20.51	20.51	21.50	
		8	7	20.35	20.39	20.34	21.50	
		15	0	20.31	20.41	20.40	21.50	
	Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
					18625/1852.5	18900/1880	19175/1907.5	
	5MHz	QPSK	1	0	23.13	23.28	23.14	24.50
1			13	23.37	23.40	23.38	24.50	
1			24	23.07	23.13	23.20	24.50	
12			0	22.26	22.38	22.38	23.50	
12			6	22.36	22.39	22.43	23.50	
12			13	22.30	22.29	22.31	23.50	
25			0	22.24	22.37	22.37	23.50	
16QAM		1	0	22.47	22.53	22.45	23.50	
		1	13	22.69	22.72	22.68	23.50	



Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up	
				18650/1855	18900/1880	19150/1905		
		1	24	22.36	22.44	22.44	23.50	
		12	0	21.31	21.40	21.45	22.50	
		12	6	21.43	21.46	21.48	22.50	
		12	13	21.33	21.35	21.33	22.50	
		25	0	21.32	21.40	21.38	22.50	
		64QAM	1	0	21.53	21.51	21.50	22.50
			1	13	21.58	21.72	21.71	22.50
			1	24	21.28	21.41	21.51	22.50
	12		0	20.29	20.42	20.47	21.50	
	12		6	20.44	20.46	20.47	21.50	
	12		13	20.32	20.34	20.30	21.50	
	25	0	20.29	20.37	20.35	21.50		
	10MHz	QPSK	1	0	23.15	23.29	23.17	24.50
			1	25	23.40	23.45	23.42	24.50
1			49	23.09	23.17	23.23	24.50	
25			0	22.29	22.43	22.42	23.50	
25			13	22.39	22.44	22.47	23.50	
25			25	22.32	22.33	22.36	23.50	
50			0	22.28	22.39	22.41	23.50	
16QAM		1	0	22.51	22.56	22.47	23.50	
		1	25	22.73	22.76	22.71	23.50	
		1	49	22.39	22.46	22.47	23.50	
		25	0	21.34	21.45	21.49	22.50	
		25	13	21.45	21.50	21.51	22.50	
		25	25	21.36	21.40	21.37	22.50	
		50	0	21.35	21.45	21.42	22.50	
64QAM		1	0	21.55	21.50	21.52	22.50	
		1	25	21.61	21.72	21.74	22.50	
		1	49	21.27	21.43	21.54	22.50	
		25	0	20.32	20.47	20.47	21.50	
		25	13	20.46	20.50	20.50	21.50	
		25	25	20.35	20.39	20.34	21.50	
		50	0	20.32	20.42	20.39	21.50	
Bandwidth		Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
					18675/1857.5	18900/1880	19125/1902.5	
15MHz		QPSK	1	0	23.14	23.25	23.15	24.50
			1	38	23.38	23.44	23.39	24.50
			1	74	23.06	23.12	23.19	24.50
			36	0	22.27	22.39	22.39	23.50
			36	18	22.36	22.39	22.43	23.50
	36		39	22.29	22.30	22.32	23.50	



	16QAM	75	0	22.26	22.35	22.36	23.50
		1	0	22.49	22.54	22.45	23.50
		1	38	22.71	22.73	22.69	23.50
		1	74	22.37	22.42	22.44	23.50
		36	0	21.31	21.43	21.46	22.50
		36	18	21.42	21.45	21.47	22.50
		36	39	21.34	21.36	21.34	22.50
		75	0	21.32	21.40	21.38	22.50
	64QAM	1	0	21.50	21.48	21.50	22.50
		1	38	21.59	21.69	21.72	22.50
		1	74	21.28	21.42	21.55	22.50
		36	0	20.31	20.49	20.48	21.50
		36	18	20.44	20.47	20.49	21.50
		36	39	20.33	20.35	20.31	21.50
		75	0	20.29	20.37	20.35	21.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				18700/1860	18900/1880	19100/1900	
20MHz	QPSK	1	0	23.11	23.21	23.12	24.50
		1	50	23.37	23.40	23.37	24.50
		1	99	23.04	23.11	23.16	24.50
		50	0	22.24	22.34	22.35	23.50
		50	25	22.34	22.35	22.40	23.50
		50	50	22.26	22.25	22.28	23.50
		100	0	22.23	22.30	22.32	23.50
	16QAM	1	0	22.46	22.50	22.40	23.50
		1	50	22.68	22.71	22.65	23.50
		1	99	22.34	22.39	22.42	23.50
		50	0	21.28	21.39	21.43	22.50
		50	25	21.39	21.43	21.44	22.50
		50	50	21.31	21.31	21.30	22.50
		100	0	21.30	21.36	21.35	22.50
	64QAM	1	0	21.48	21.44	21.45	22.50
		1	50	21.55	21.67	21.68	22.50
		1	99	21.22	21.36	21.49	22.50
		50	0	20.26	20.41	20.41	21.50
		50	25	20.40	20.43	20.43	21.50
		50	50	20.30	20.30	20.27	21.50
		100	0	20.27	20.33	20.32	21.50





LTE Band2							
DSI4				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				18607/1850.7	18900/1880	19193/1909.3	
1.4MHz	QPSK	1	0	19.67	20.36	19.59	21.00
		1	2	19.88	19.98	19.91	21.00
		1	5	19.60	19.60	19.69	21.00
		3	0	19.73	19.83	19.85	21.00
		3	2	19.81	19.83	19.89	21.00
		3	3	19.73	19.73	19.73	21.00
		6	0	19.63	19.80	19.78	21.00
	16QAM	1	0	20.17	20.22	20.30	21.00
		1	2	20.36	20.35	20.45	21.00
		1	5	20.14	20.16	20.17	21.00
		3	0	19.86	19.81	19.88	21.00
		3	2	19.85	19.82	19.89	21.00
		3	3	19.76	19.79	19.81	21.00
		6	0	19.69	19.73	19.77	21.00
	64QAM	1	0	20.13	20.12	20.18	21.00
		1	2	20.40	20.35	20.42	21.00
		1	5	20.07	20.02	20.03	21.00
		3	0	19.89	19.82	19.93	21.00
		3	2	19.89	19.85	19.92	21.00
		3	3	19.73	19.76	19.78	21.00
		6	0	19.75	19.79	19.83	21.00
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				18615/1851.5	18900/1880	19185/1908.5	
3MHz	QPSK	1	0	19.65	20.29	19.57	21.00
		1	7	19.88	19.98	19.90	21.00
		1	14	19.57	19.58	19.65	21.00
		8	0	19.71	19.79	19.82	21.00
		8	4	19.79	19.79	19.86	21.00
		8	7	19.69	19.69	19.70	21.00
		15	0	19.62	19.73	19.73	21.00
	16QAM	1	0	20.16	20.19	20.25	21.00
		1	7	20.35	20.34	20.42	21.00
		1	14	20.12	20.11	20.15	21.00
		8	0	19.83	19.80	19.86	21.00
		8	4	19.81	19.79	19.85	21.00
		8	7	19.74	19.75	19.78	21.00
		15	0	19.67	19.69	19.74	21.00
	64QAM	1	0	20.08	20.05	20.13	21.00



Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up	
				18625/1852.5	18900/1880	19175/1907.5		
		1	7	20.37	20.30	20.39	21.00	
		1	14	20.01	19.97	20.01	21.00	
		8	0	19.86	19.81	19.87	21.00	
		8	4	19.85	19.82	19.88	21.00	
		8	7	19.71	19.72	19.75	21.00	
		15	0	19.73	19.75	19.80	21.00	
5MHz	QPSK	1	0	19.62	20.27	19.53	21.00	
		1	13	19.86	19.94	19.87	21.00	
		1	24	19.54	19.53	19.61	21.00	
		12	0	19.68	19.74	19.78	21.00	
		12	6	19.77	19.75	19.81	21.00	
		12	13	19.67	19.67	19.66	21.00	
		25	0	19.62	19.72	19.71	21.00	
	16QAM	1	0	20.16	20.15	20.22	21.00	
		1	13	20.35	20.32	20.39	21.00	
		1	24	20.09	20.09	20.11	21.00	
		12	0	19.81	19.76	19.83	21.00	
		12	6	19.78	19.74	19.81	21.00	
		12	13	19.71	19.70	19.74	21.00	
		25	0	19.65	19.65	19.69	21.00	
	64QAM	1	0	20.05	20.05	20.10	21.00	
		1	13	20.34	20.32	20.36	21.00	
		1	24	20.02	19.95	19.97	21.00	
		12	0	19.84	19.77	19.88	21.00	
		12	6	19.82	19.77	19.84	21.00	
		12	13	19.68	19.67	19.71	21.00	
		25	0	19.71	19.71	19.75	21.00	
	Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
					18650/1855	18900/1880	19150/1905	
	10MHz	QPSK	1	0	19.64	20.28	19.56	21.00
1			25	19.89	19.99	19.91	21.00	
1			49	19.56	19.57	19.64	21.00	
25			0	19.71	19.79	19.82	21.00	
25			13	19.80	19.80	19.85	21.00	
25			25	19.69	19.71	19.71	21.00	
50			0	19.66	19.74	19.75	21.00	
16QAM		1	0	20.20	20.18	20.24	21.00	
		1	25	20.39	20.36	20.42	21.00	
		1	49	20.12	20.11	20.14	21.00	
		25	0	19.84	19.81	19.87	21.00	
		25	13	19.80	19.78	19.84	21.00	



Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up	
				18675/1857.5	18900/1880	19125/1902.5		
		25	25	19.74	19.75	19.78	21.00	
		50	0	19.68	19.70	19.73	21.00	
	64QAM	1	0	20.07	20.04	20.12	21.00	
		1	25	20.37	20.32	20.39	21.00	
		1	49	20.01	19.97	20.00	21.00	
		25	0	19.87	19.82	19.88	21.00	
		25	13	19.84	19.81	19.87	21.00	
		25	25	19.71	19.72	19.75	21.00	
		50	0	19.74	19.76	19.79	21.00	
15MHz	QPSK	1	0	19.63	20.24	19.54	21.00	
		1	38	19.87	19.98	19.88	21.00	
		1	74	19.53	19.52	19.60	21.00	
		36	0	19.69	19.75	19.79	21.00	
		36	18	19.77	19.75	19.81	21.00	
		36	39	19.66	19.68	19.67	21.00	
		75	0	19.64	19.70	19.70	21.00	
	16QAM	1	0	20.18	20.16	20.22	21.00	
		1	38	20.37	20.33	20.40	21.00	
		1	74	20.10	20.07	20.11	21.00	
		36	0	19.81	19.79	19.84	21.00	
		36	18	19.77	19.73	19.80	21.00	
		36	39	19.72	19.71	19.75	21.00	
		75	0	19.65	19.65	19.69	21.00	
	64QAM	1	0	20.02	20.02	20.10	21.00	
		1	38	20.35	20.29	20.37	21.00	
		1	74	20.02	19.96	20.01	21.00	
		36	0	19.86	19.84	19.89	21.00	
		36	18	19.82	19.78	19.86	21.00	
		36	39	19.69	19.68	19.72	21.00	
		75	0	19.71	19.71	19.75	21.00	
	Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
					18700/1860	18900/1880	19100/1900	
	20MHz	QPSK	1	0	19.60	20.20	19.51	21.00
1			50	19.86	19.94	19.86	21.00	
1			99	19.51	19.51	19.57	21.00	
50			0	19.66	19.70	19.75	21.00	
50			25	19.75	19.71	19.78	21.00	
50			50	19.63	19.63	19.63	21.00	
100			0	19.61	19.65	19.66	21.00	
16QAM		1	0	20.15	20.12	20.17	21.00	
		1	50	20.34	20.31	20.36	21.00	



		1	99	20.07	20.04	20.09	21.00
		50	0	19.78	19.75	19.81	21.00
		50	25	19.74	19.71	19.77	21.00
		50	50	19.69	19.66	19.71	21.00
		100	0	19.63	19.61	19.66	21.00
	64QAM	1	0	20.00	19.98	20.05	21.00
		1	50	20.31	20.27	20.33	21.00
		1	99	19.96	19.90	19.95	21.00
		50	0	19.81	19.76	19.82	21.00
		50	25	19.78	19.74	19.80	21.00
		50	50	19.66	19.63	19.68	21.00
		100	0	19.69	19.67	19.72	21.00

LTE Band4							
Full Power&DSI2				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				19957/1710.7	20175/1732.5	20393/1754.3	
1.4MHz	QPSK	1	0	23.23	23.29	23.23	25.00
		1	2	23.44	23.40	23.40	25.00
		1	5	23.06	23.08	23.13	25.00
		3	0	23.29	23.32	23.39	25.00
		3	2	23.32	23.34	23.36	25.00
		3	3	23.31	23.19	23.24	25.00
		6	0	22.38	22.35	22.39	24.00
	16QAM	1	0	22.66	22.64	22.62	24.00
		1	2	22.89	22.80	22.76	24.00
		1	5	22.46	22.42	22.47	24.00
		3	0	22.29	22.30	22.36	24.00
		3	2	22.41	22.34	22.38	24.00
		3	3	22.29	22.23	22.20	24.00
		6	0	21.38	21.36	21.38	23.00
	64QAM	1	0	21.53	21.45	21.56	23.00
		1	2	21.71	21.60	21.67	23.00
		1	5	21.22	21.30	21.39	23.00
		3	0	21.24	21.29	21.39	23.00
		3	2	21.37	21.32	21.37	23.00
		3	3	21.27	21.23	21.22	23.00
		6	0	20.36	20.32	20.37	22.00
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
3MHz	QPSK	1	0	23.25	23.33	23.26	25.00
		1	7	23.42	23.43	23.44	25.00
		1	14	23.09	23.13	23.17	25.00



		8	0	22.39	22.44	22.52	24.00	
		8	4	22.44	22.44	22.48	24.00	
		8	7	22.41	22.30	22.34	24.00	
		15	0	22.38	22.39	22.42	24.00	
	16QAM	1	0	22.66	22.66	22.65	24.00	
		1	7	22.89	22.80	22.80	24.00	
		1	14	22.48	22.46	22.50	24.00	
		8	0	21.40	21.43	21.48	23.00	
		8	4	21.52	21.47	21.50	23.00	
		8	7	21.39	21.35	21.33	23.00	
		15	0	21.41	21.40	21.41	23.00	
		64QAM	1	0	21.56	21.47	21.59	23.00
	1		7	21.74	21.60	21.69	23.00	
	1		14	21.24	21.29	21.42	23.00	
	8		0	20.35	20.42	20.51	22.00	
	8		4	20.48	20.45	20.49	22.00	
	8		7	20.37	20.35	20.35	22.00	
	15		0	20.39	20.36	20.40	22.00	
	Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
					19975/1712.5	20175/1732.5	20375/1752.5	
	5MHz	QPSK	1	0	23.22	23.31	23.22	25.00
1			13	23.40	23.39	23.41	25.00	
1			24	23.06	23.08	23.13	25.00	
12			0	22.36	22.39	22.48	24.00	
12			6	22.42	22.40	22.43	24.00	
12			13	22.39	22.28	22.30	24.00	
25			0	22.38	22.38	22.40	24.00	
16QAM		1	0	22.66	22.62	22.62	24.00	
		1	13	22.89	22.78	22.77	24.00	
		1	24	22.45	22.44	22.46	24.00	
		12	0	21.38	21.39	21.45	23.00	
		12	6	21.49	21.42	21.46	23.00	
		12	13	21.36	21.30	21.29	23.00	
		25	0	21.39	21.36	21.36	23.00	
64QAM		1	0	21.53	21.47	21.56	23.00	
		1	13	21.71	21.62	21.66	23.00	
		1	24	21.25	21.27	21.38	23.00	
		12	0	20.33	20.38	20.52	22.00	
		12	6	20.45	20.40	20.45	22.00	
		12	13	20.34	20.30	20.31	22.00	
		25	0	20.37	20.32	20.35	22.00	



Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				20000/1715	20175/1732.5	20350/1750	
10MHz	QPSK	1	0	23.24	23.32	23.25	25.00
		1	25	23.43	23.44	23.45	25.00
		1	49	23.08	23.12	23.16	25.00
		25	0	22.39	22.44	22.52	24.00
		25	13	22.45	22.45	22.47	24.00
		25	25	22.41	22.32	22.35	24.00
		50	0	22.42	22.40	22.44	24.00
	16QAM	1	0	22.70	22.65	22.64	24.00
		1	25	22.93	22.82	22.80	24.00
		1	49	22.48	22.46	22.49	24.00
		25	0	21.41	21.44	21.49	23.00
		25	13	21.51	21.46	21.49	23.00
		25	25	21.39	21.35	21.33	23.00
		50	0	21.42	21.41	21.40	23.00
	64QAM	1	0	21.55	21.46	21.58	23.00
		1	25	21.74	21.62	21.69	23.00
		1	49	21.24	21.29	21.41	23.00
		25	0	20.36	20.43	20.52	22.00
		25	13	20.47	20.44	20.48	22.00
		25	25	20.37	20.35	20.35	22.00
		50	0	20.40	20.37	20.39	22.00
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
15MHz	QPSK	1	0	23.23	23.28	23.23	25.00
		1	38	23.41	23.43	23.42	25.00
		1	74	23.05	23.07	23.12	25.00
		36	0	22.37	22.40	22.49	24.00
		36	18	22.42	22.40	22.43	24.00
		36	39	22.38	22.29	22.31	24.00
		75	0	22.40	22.36	22.39	24.00
	16QAM	1	0	22.68	22.63	22.62	24.00
		1	38	22.91	22.79	22.78	24.00
		1	74	22.46	22.42	22.46	24.00
		36	0	21.38	21.42	21.46	23.00
		36	18	21.48	21.41	21.45	23.00
		36	39	21.37	21.31	21.30	23.00
		75	0	21.39	21.36	21.36	23.00
	64QAM	1	0	21.50	21.44	21.56	23.00
		1	38	21.72	21.59	21.67	23.00
		1	74	21.25	21.28	21.42	23.00



Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				20050/1720	20175/1732.5	20300/1745	
		36	0	20.35	20.45	20.53	22.00
		36	18	20.45	20.41	20.47	22.00
		36	39	20.35	20.31	20.32	22.00
		75	0	20.37	20.32	20.35	22.00
20MHz	QPSK	1	0	23.20	23.24	23.20	25.00
		1	50	23.40	23.39	23.40	25.00
		1	99	23.03	23.06	23.09	25.00
		50	0	22.34	22.35	22.45	24.00
		50	25	22.40	22.36	22.40	24.00
		50	50	22.35	22.24	22.27	24.00
		100	0	22.37	22.31	22.35	24.00
	16QAM	1	0	22.65	22.59	22.57	24.00
		1	50	22.88	22.77	22.74	24.00
		1	99	22.43	22.39	22.44	24.00
		50	0	21.35	21.38	21.43	23.00
		50	25	21.45	21.39	21.42	23.00
		50	50	21.34	21.26	21.26	23.00
		100	0	21.37	21.32	21.33	23.00
	64QAM	1	0	21.48	21.40	21.51	23.00
		1	50	21.68	21.57	21.63	23.00
		1	99	21.19	21.22	21.36	23.00
		50	0	20.30	20.37	20.46	22.00
		50	25	20.41	20.37	20.41	22.00
		50	50	20.32	20.26	20.28	22.00
		100	0	20.35	20.28	20.32	22.00

LTE Band4							
DSI1				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				19957/1710.7	20175/1732.5	20393/1754.3	
1.4MHz	QPSK	1	0	23.24	23.22	23.21	24.50
		1	2	23.40	23.34	23.41	24.50
		1	5	23.04	23.04	23.12	24.50
		3	0	23.25	23.29	23.36	24.50
		3	2	23.29	23.35	23.32	24.50
		3	3	23.24	23.19	23.21	24.50
		6	0	22.32	22.30	22.37	23.50
	16QAM	1	0	22.61	22.69	22.57	23.50
		1	2	22.76	22.80	22.85	23.50
		1	5	22.45	22.49	22.46	23.50
		3	0	22.27	22.25	22.34	23.50





Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up	
				19965/1711.5	20175/1732.5	20385/1753.5		
	64QAM	3	2	22.34	22.31	22.33	23.50	
		3	3	22.30	22.22	22.18	23.50	
		6	0	21.36	21.31	21.40	22.50	
		1	0	21.46	21.46	21.37	22.50	
		1	2	21.69	21.58	21.63	22.50	
		1	5	21.30	21.32	21.24	22.50	
		3	0	21.24	21.23	21.36	22.50	
		3	2	21.37	21.32	21.30	22.50	
		3	3	21.27	21.20	21.20	22.50	
		6	0	20.34	20.30	20.37	21.50	
3MHz	QPSK	1	0	23.26	23.26	23.24	24.50	
		1	7	23.38	23.37	23.45	24.50	
		1	14	23.07	23.09	23.16	24.50	
		8	0	22.35	22.41	22.49	23.50	
		8	4	22.41	22.45	22.44	23.50	
		8	7	22.34	22.30	22.31	23.50	
		15	0	22.32	22.34	22.40	23.50	
	16QAM	1	0	22.61	22.71	22.60	23.50	
		1	7	22.76	22.80	22.89	23.50	
		1	14	22.47	22.53	22.49	23.50	
		8	0	21.38	21.38	21.46	22.50	
		8	4	21.45	21.44	21.45	22.50	
		8	7	21.40	21.34	21.31	22.50	
		15	0	21.39	21.35	21.43	22.50	
	64QAM	1	0	21.49	21.48	21.40	22.50	
		1	7	21.72	21.58	21.65	22.50	
		1	14	21.32	21.31	21.27	22.50	
		8	0	20.35	20.36	20.48	21.50	
		8	4	20.48	20.45	20.42	21.50	
		8	7	20.37	20.32	20.33	21.50	
		15	0	20.37	20.34	20.40	21.50	
	Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
					19975/1712.5	20175/1732.5	20375/1752.5	
	5MHz	QPSK	1	0	23.23	23.24	23.20	24.50
1			13	23.36	23.33	23.42	24.50	
1			24	23.04	23.04	23.12	24.50	
12			0	22.32	22.36	22.45	23.50	
12			6	22.39	22.41	22.39	23.50	
12			13	22.32	22.28	22.27	23.50	
25			0	22.32	22.33	22.38	23.50	
16QAM		1	0	22.61	22.67	22.57	23.50	



		1	13	22.76	22.78	22.86	23.50	
		1	24	22.44	22.51	22.45	23.50	
		12	0	21.36	21.34	21.43	22.50	
		12	6	21.42	21.39	21.41	22.50	
		12	13	21.37	21.29	21.27	22.50	
		25	0	21.37	21.31	21.38	22.50	
	64QAM	1	0	21.46	21.48	21.37	22.50	
		1	13	21.69	21.60	21.62	22.50	
		1	24	21.33	21.29	21.23	22.50	
		12	0	20.33	20.32	20.49	21.50	
		12	6	20.45	20.40	20.38	21.50	
		12	13	20.34	20.27	20.29	21.50	
			25	0	20.35	20.30	20.35	21.50
	Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
20000/1715					20175/1732.5	20350/1750		
10MHz	QPSK	1	0	23.25	23.25	23.23	24.50	
		1	25	23.39	23.38	23.46	24.50	
		1	49	23.06	23.08	23.15	24.50	
		25	0	22.35	22.41	22.49	23.50	
		25	13	22.42	22.46	22.43	23.50	
		25	25	22.34	22.32	22.32	23.50	
		50	0	22.36	22.35	22.42	23.50	
	16QAM	1	0	22.65	22.70	22.59	23.50	
		1	25	22.80	22.82	22.89	23.50	
		1	49	22.47	22.53	22.48	23.50	
		25	0	21.39	21.39	21.47	22.50	
		25	13	21.44	21.43	21.44	22.50	
		25	25	21.40	21.34	21.31	22.50	
		50	0	21.40	21.36	21.42	22.50	
	64QAM	1	0	21.48	21.47	21.39	22.50	
		1	25	21.72	21.60	21.65	22.50	
		1	49	21.32	21.31	21.26	22.50	
		25	0	20.36	20.37	20.49	21.50	
		25	13	20.47	20.44	20.41	21.50	
		25	25	20.37	20.32	20.33	21.50	
		50	0	20.38	20.35	20.39	21.50	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up	
				20025/1717.5	20175/1732.5	20325/1747.5		
15MHz	QPSK	1	0	23.24	23.21	23.21	24.50	
		1	38	23.37	23.37	23.43	24.50	
		1	74	23.03	23.03	23.11	24.50	
		36	0	22.33	22.37	22.46	23.50	
		36	18	22.39	22.41	22.39	23.50	



		36	39	22.31	22.29	22.28	23.50
		75	0	22.34	22.31	22.37	23.50
	16QAM	1	0	22.63	22.68	22.57	23.50
		1	38	22.78	22.79	22.87	23.50
		1	74	22.45	22.49	22.45	23.50
		36	0	21.36	21.37	21.44	22.50
		36	18	21.41	21.38	21.40	22.50
		36	39	21.38	21.30	21.28	22.50
		75	0	21.37	21.31	21.38	22.50
		64QAM	1	0	21.43	21.45	21.37
	1		38	21.70	21.57	21.63	22.50
	1		74	21.33	21.30	21.27	22.50
	36		0	20.35	20.39	20.50	21.50
	36		18	20.45	20.41	20.40	21.50
	36		39	20.35	20.28	20.30	21.50
	75		0	20.35	20.30	20.35	21.50
	Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)		
				20050/1720	20175/1732.5	20300/1745	
20MHz	QPSK	1	0	23.21	23.17	23.18	24.50
		1	50	23.36	23.33	23.41	24.50
		1	99	23.01	23.02	23.08	24.50
		50	0	22.30	22.32	22.42	23.50
		50	25	22.37	22.37	22.36	23.50
		50	50	22.28	22.24	22.24	23.50
		100	0	22.31	22.26	22.33	23.50
	16QAM	1	0	22.60	22.64	22.52	23.50
		1	50	22.75	22.77	22.83	23.50
		1	99	22.42	22.46	22.43	23.50
		50	0	21.33	21.33	21.41	22.50
		50	25	21.38	21.36	21.37	22.50
		50	50	21.35	21.25	21.24	22.50
		100	0	21.35	21.27	21.35	22.50
	64QAM	1	0	21.41	21.41	21.32	22.50
		1	50	21.66	21.55	21.59	22.50
		1	99	21.27	21.24	21.21	22.50
		50	0	20.30	20.31	20.43	21.50
		50	25	20.41	20.37	20.34	21.50
		50	50	20.32	20.23	20.26	21.50
		100	0	20.33	20.26	20.32	21.50



LTE Band4							
DSI4				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				19957/1710.7	20175/1732.5	20393/1754.3	
1.4MHz	QPSK	1	0	19.77	19.84	19.76	21.00
		1	2	19.95	19.88	19.95	21.00
		1	5	19.61	19.65	19.69	21.00
		3	0	19.82	19.95	19.94	21.00
		3	2	19.90	19.94	19.92	21.00
		3	3	19.85	19.78	19.78	21.00
		6	0	19.81	19.89	19.91	21.00
	16QAM	1	0	20.14	20.18	20.13	21.00
		1	2	20.27	20.26	20.31	21.00
		1	5	19.99	20.04	19.94	21.00
		3	0	19.85	19.87	19.98	21.00
		3	2	19.99	19.92	19.99	21.00
		3	3	19.90	19.83	19.84	21.00
		6	0	19.88	19.86	19.88	21.00
	64QAM	1	0	20.08	20.02	19.97	21.00
		1	2	20.24	20.08	20.14	21.00
		1	5	19.86	19.82	19.82	21.00
		3	0	19.85	19.86	20.01	21.00
		3	2	19.94	19.94	19.98	21.00
		3	3	19.88	19.84	19.81	21.00
		6	0	19.89	19.87	19.88	21.00
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				19965/1711.5	20175/1732.5	20385/1753.5	
3MHz	QPSK	1	0	19.75	19.77	19.74	21.00
		1	7	19.95	19.88	19.94	21.00
		1	14	19.58	19.63	19.65	21.00
		8	0	19.80	19.91	19.91	21.00
		8	4	19.88	19.90	19.89	21.00
		8	7	19.81	19.74	19.75	21.00
		15	0	19.80	19.82	19.86	21.00
	16QAM	1	0	20.13	20.15	20.08	21.00
		1	7	20.26	20.25	20.28	21.00
		1	14	19.97	19.99	19.92	21.00
		8	0	19.82	19.86	19.96	21.00
		8	4	19.95	19.89	19.95	21.00
		8	7	19.88	19.79	19.81	21.00
		15	0	19.86	19.82	19.85	21.00
	64QAM	1	0	20.03	19.95	19.92	21.00



Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up	
				19975/1712.5	20175/1732.5	20375/1752.5		
		1	7	20.21	20.03	20.11	21.00	
		1	14	19.80	19.77	19.80	21.00	
		8	0	19.82	19.85	19.95	21.00	
		8	4	19.90	19.91	19.94	21.00	
		8	7	19.86	19.80	19.78	21.00	
		15	0	19.87	19.83	19.85	21.00	
5MHz	QPSK	1	0	19.72	19.75	19.70	21.00	
		1	13	19.93	19.84	19.91	21.00	
		1	24	19.55	19.58	19.61	21.00	
		12	0	19.77	19.86	19.87	21.00	
		12	6	19.86	19.86	19.84	21.00	
		12	13	19.79	19.72	19.71	21.00	
		25	0	19.80	19.81	19.84	21.00	
	16QAM	1	0	20.13	20.11	20.05	21.00	
		1	13	20.26	20.23	20.25	21.00	
		1	24	19.94	19.97	19.88	21.00	
		12	0	19.80	19.82	19.93	21.00	
		12	6	19.92	19.84	19.91	21.00	
		12	13	19.85	19.74	19.77	21.00	
		25	0	19.84	19.78	19.80	21.00	
	64QAM	1	0	20.00	19.95	19.89	21.00	
		1	13	20.18	20.05	20.08	21.00	
		1	24	19.81	19.75	19.76	21.00	
		12	0	19.80	19.81	19.96	21.00	
		12	6	19.87	19.86	19.90	21.00	
		12	13	19.83	19.75	19.74	21.00	
		25	0	19.85	19.79	19.80	21.00	
	Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
					20000/1715	20175/1732.5	20350/1750	
	10MHz	QPSK	1	0	19.74	19.76	19.73	21.00
1			25	19.96	19.89	19.95	21.00	
1			49	19.57	19.62	19.64	21.00	
25			0	19.80	19.91	19.91	21.00	
25			13	19.89	19.91	19.88	21.00	
25			25	19.81	19.76	19.76	21.00	
50			0	19.84	19.83	19.88	21.00	
16QAM		1	0	20.17	20.14	20.07	21.00	
		1	25	20.30	20.27	20.28	21.00	
		1	49	19.97	19.99	19.91	21.00	
		25	0	19.83	19.87	19.97	21.00	
		25	13	19.94	19.88	19.94	21.00	



Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up	
				20025/1717.5	20175/1732.5	20325/1747.5		
		25	25	19.88	19.79	19.81	21.00	
		50	0	19.87	19.83	19.84	21.00	
	64QAM	1	0	20.02	19.94	19.91	21.00	
		1	25	20.21	20.05	20.11	21.00	
		1	49	19.80	19.77	19.79	21.00	
		25	0	19.83	19.86	19.96	21.00	
		25	13	19.89	19.90	19.93	21.00	
		25	25	19.86	19.80	19.78	21.00	
		50	0	19.88	19.84	19.84	21.00	
15MHz	QPSK	1	0	19.73	19.72	19.71	21.00	
		1	38	19.94	19.88	19.92	21.00	
		1	74	19.54	19.57	19.60	21.00	
		36	0	19.78	19.87	19.88	21.00	
		36	18	19.86	19.86	19.84	21.00	
		36	39	19.78	19.73	19.72	21.00	
		75	0	19.82	19.79	19.83	21.00	
	16QAM	1	0	20.15	20.12	20.05	21.00	
		1	38	20.28	20.24	20.26	21.00	
		1	74	19.95	19.95	19.88	21.00	
		36	0	19.80	19.85	19.94	21.00	
		36	18	19.91	19.83	19.90	21.00	
		36	39	19.86	19.75	19.78	21.00	
		75	0	19.84	19.78	19.80	21.00	
	64QAM	1	0	19.97	19.92	19.89	21.00	
		1	38	20.19	20.02	20.09	21.00	
		1	74	19.81	19.76	19.80	21.00	
		36	0	19.82	19.88	19.97	21.00	
		36	18	19.87	19.87	19.92	21.00	
		36	39	19.84	19.76	19.75	21.00	
		75	0	19.85	19.79	19.80	21.00	
	Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
					20050/1720	20175/1732.5	20300/1745	
	20MHz	QPSK	1	0	19.70	19.68	19.68	21.00
1			50	19.93	19.84	19.90	21.00	
1			99	19.52	19.56	19.57	21.00	
50			0	19.75	19.82	19.84	21.00	
50			25	19.84	19.82	19.81	21.00	
50			50	19.75	19.68	19.68	21.00	
100			0	19.79	19.74	19.79	21.00	
16QAM		1	0	20.12	20.08	20.00	21.00	
		1	50	20.25	20.22	20.22	21.00	



		1	99	19.92	19.92	19.86	21.00
		50	0	19.77	19.81	19.91	21.00
		50	25	19.88	19.81	19.87	21.00
		50	50	19.83	19.70	19.74	21.00
		100	0	19.82	19.74	19.77	21.00
	64QAM	1	0	19.95	19.88	19.84	21.00
		1	50	20.15	20.00	20.05	21.00
		1	99	19.75	19.70	19.74	21.00
		50	0	19.77	19.80	19.90	21.00
		50	25	19.83	19.83	19.86	21.00
		50	50	19.81	19.71	19.71	21.00
		100	0	19.83	19.75	19.77	21.00

LTE Band5							
Full Power&DSI2				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				20407/824.7	20525/836.5	20643/848.3	
1.4MHz	QPSK	1	0	23.56	23.58	23.58	25.00
		1	2	23.72	23.70	23.60	25.00
		1	5	23.60	23.56	23.54	25.00
		3	0	23.66	23.63	23.67	25.00
		3	2	23.60	23.67	23.62	25.00
		3	3	23.58	23.58	23.52	25.00
		6	0	22.70	22.73	22.71	24.00
	16QAM	1	0	22.78	22.84	22.84	24.00
		1	2	22.97	22.98	22.88	24.00
		1	5	22.88	22.84	22.76	24.00
		3	0	22.65	22.57	22.62	24.00
		3	2	22.62	22.61	22.62	24.00
		3	3	22.62	22.56	22.47	24.00
		6	0	21.73	21.68	21.71	23.00
	64QAM	1	0	21.77	21.78	21.79	23.00
		1	2	21.90	21.90	21.88	23.00
		1	5	21.77	21.83	21.71	23.00
		3	0	21.66	21.58	21.62	23.00
		3	2	21.61	21.62	21.59	23.00
		3	3	21.60	21.59	21.50	23.00
		6	0	20.71	20.70	20.73	22.00
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
3MHz	QPSK	1	0	23.57	23.61	23.60	25.00
		1	7	23.71	23.74	23.65	25.00
		1	14	23.62	23.60	23.57	25.00





		8	0	22.76	22.75	22.80	24.00	
		8	4	22.73	22.78	22.73	24.00	
		8	7	22.68	22.71	22.63	24.00	
		15	0	22.74	22.78	22.76	24.00	
	16QAM	1	0	22.82	22.85	22.86	24.00	
		1	7	23.01	23.00	22.92	24.00	
		1	14	22.90	22.88	22.78	24.00	
		8	0	21.77	21.71	21.75	23.00	
		8	4	21.72	21.73	21.73	23.00	
		8	7	21.72	21.68	21.60	23.00	
		15	0	21.77	21.73	21.73	23.00	
		64QAM	1	0	21.79	21.79	21.81	23.00
	1		7	21.93	21.92	21.90	23.00	
	1		14	21.79	21.82	21.73	23.00	
	8		0	20.78	20.72	20.75	22.00	
	8		4	20.71	20.74	20.70	22.00	
	8		7	20.70	20.71	20.63	22.00	
	15		0	20.75	20.75	20.75	22.00	
	Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
					20425/826.5	20525/836.5	20625/846.5	
	5MHz	QPSK	1	0	23.56	23.57	23.58	25.00
1			13	23.69	23.73	23.62	25.00	
1			24	23.59	23.55	23.53	25.00	
12			0	22.74	22.71	22.77	24.00	
12			6	22.70	22.73	22.69	24.00	
12			13	22.65	22.68	22.59	24.00	
25			0	22.72	22.74	22.71	24.00	
16QAM		1	0	22.80	22.83	22.84	24.00	
		1	13	22.99	22.97	22.90	24.00	
		1	24	22.88	22.84	22.75	24.00	
		12	0	21.74	21.69	21.72	23.00	
		12	6	21.69	21.68	21.69	23.00	
		12	13	21.70	21.64	21.57	23.00	
		25	0	21.74	21.68	21.69	23.00	
64QAM		1	0	21.74	21.77	21.79	23.00	
		1	13	21.91	21.89	21.88	23.00	
		1	24	21.80	21.81	21.74	23.00	
		12	0	20.77	20.74	20.76	22.00	
		12	6	20.69	20.71	20.69	22.00	
		12	13	20.68	20.67	20.60	22.00	
		25	0	20.72	20.70	20.71	22.00	



Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				20450/829	20525/836.5	20600/844	
10MHz	QPSK	1	0	23.53	23.53	23.55	25.00
		1	25	23.68	23.69	23.60	25.00
		1	49	23.57	23.54	23.50	25.00
		25	0	22.71	22.66	22.73	24.00
		25	13	22.68	22.69	22.66	24.00
		25	25	22.62	22.63	22.55	24.00
		50	0	22.69	22.69	22.67	24.00
	16QAM	1	0	22.77	22.79	22.79	24.00
		1	25	22.96	22.95	22.86	24.00
		1	49	22.85	22.81	22.73	24.00
		25	0	21.71	21.65	21.69	23.00
		25	13	21.66	21.66	21.66	23.00
		25	25	21.67	21.59	21.53	23.00
		50	0	21.72	21.64	21.66	23.00
	64QAM	1	0	21.72	21.73	21.74	23.00
		1	25	21.87	21.87	21.84	23.00
		1	49	21.74	21.75	21.68	23.00
		25	0	20.72	20.66	20.69	22.00
		25	13	20.65	20.67	20.63	22.00
		25	25	20.65	20.62	20.56	22.00
		50	0	20.70	20.66	20.68	22.00

LTE Band5							
DSI1&DSI4				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				20407/824.7	20525/836.5	20643/848.3	
1.4MHz	QPSK	1	0	23.60	23.65	23.60	24.50
		1	2	23.74	23.71	23.68	24.50
		1	5	23.62	23.58	23.55	24.50
		3	0	23.72	23.68	23.73	24.50
		3	2	23.66	23.69	23.67	24.50
		3	3	23.65	23.59	23.59	24.50
		6	0	22.77	22.71	22.73	23.50
	16QAM	1	0	22.85	22.95	22.92	23.50
		1	2	22.98	23.04	22.97	23.50
		1	5	22.95	22.91	22.79	23.50
		3	0	22.68	22.61	22.66	23.50
		3	2	22.66	22.65	22.65	23.50
		3	3	22.63	22.63	22.50	23.50
		6	0	21.75	21.73	21.74	22.50



Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				20415/825.5	20525/836.5	20635/847.5	
	64QAM	1	0	21.78	21.80	21.82	22.50
		1	2	21.91	21.94	21.88	22.50
		1	5	21.83	21.87	21.74	22.50
		3	0	21.66	21.62	21.65	22.50
		3	2	21.66	21.62	21.62	22.50
		3	3	21.63	21.63	21.55	22.50
		6	0	20.76	20.71	20.74	21.50
3MHz	QPSK	1	0	23.59	23.67	23.59	24.50
		1	7	23.70	23.70	23.69	24.50
		1	14	23.62	23.58	23.55	24.50
		8	0	22.79	22.75	22.82	23.50
		8	4	22.76	22.75	22.74	23.50
		8	7	22.73	22.68	22.65	23.50
		15	0	22.77	22.74	22.74	23.50
	16QAM	1	0	22.85	22.93	22.92	23.50
		1	7	22.98	23.02	22.98	23.50
		1	14	22.94	22.93	22.78	23.50
		8	0	21.77	21.70	21.75	22.50
		8	4	21.74	21.73	21.73	22.50
		8	7	21.70	21.70	21.59	22.50
		15	0	21.76	21.73	21.72	22.50
	64QAM	1	0	21.78	21.82	21.82	22.50
		1	7	21.91	21.96	21.87	22.50
		1	14	21.86	21.84	21.73	22.50
		8	0	20.75	20.71	20.78	21.50
		8	4	20.74	20.70	20.70	21.50
		8	7	20.70	20.70	20.64	21.50
		15	0	20.77	20.71	20.72	21.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				20425/826.5	20525/836.5	20625/846.5	
5MHz	QPSK	1	0	23.60	23.64	23.60	24.50
		1	13	23.71	23.74	23.70	24.50
		1	24	23.61	23.57	23.54	24.50
		12	0	22.80	22.76	22.83	23.50
		12	6	22.76	22.75	22.74	23.50
		12	13	22.72	22.69	22.66	23.50
		25	0	22.79	22.72	22.73	23.50
	16QAM	1	0	22.87	22.94	22.92	23.50
		1	13	23.00	23.03	22.99	23.50
		1	24	22.95	22.91	22.78	23.50
		12	0	21.77	21.73	21.76	22.50



Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up	
				20450/829	20525/836.5	20600/844		
10MHz	64QAM	12	6	21.73	21.72	21.72	22.50	
		12	13	21.71	21.71	21.60	22.50	
		25	0	21.76	21.73	21.72	22.50	
		1	0	21.75	21.79	21.82	22.50	
		1	13	21.92	21.93	21.88	22.50	
		1	24	21.86	21.85	21.77	22.50	
		12	0	20.77	20.78	20.79	21.50	
		12	6	20.74	20.71	20.72	21.50	
		12	13	20.71	20.71	20.65	21.50	
	25	0	20.77	20.71	20.72	21.50		
	10MHz	QPSK	1	0	23.57	23.60	23.57	24.50
			1	25	23.70	23.70	23.68	24.50
			1	49	23.59	23.56	23.51	24.50
			25	0	22.77	22.71	22.79	23.50
			25	13	22.74	22.71	22.71	23.50
25			25	22.69	22.64	22.62	23.50	
50			0	22.76	22.67	22.69	23.50	
16QAM		1	0	22.84	22.90	22.87	23.50	
		1	25	22.97	23.01	22.95	23.50	
		1	49	22.92	22.88	22.76	23.50	
		25	0	21.74	21.69	21.73	22.50	
		25	13	21.70	21.70	21.69	22.50	
		25	25	21.68	21.66	21.56	22.50	
		50	0	21.74	21.69	21.69	22.50	
64QAM		1	0	21.73	21.75	21.77	22.50	
	1	25	21.88	21.91	21.84	22.50		
	1	49	21.80	21.79	21.71	22.50		
	25	0	20.72	20.70	20.72	21.50		
	25	13	20.70	20.67	20.66	21.50		
	25	25	20.68	20.66	20.61	21.50		
	50	0	20.75	20.67	20.69	21.50		

LTE Band7							
Full Power&DSI2				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				20775/2502.5	21100/2535	21425/2567.5	
5MHz	QPSK	1	0	23.03	23.21	23.17	24.50
		1	13	23.34	23.39	23.37	24.50
		1	24	23.16	23.24	23.21	24.50
		12	0	22.19	22.49	22.40	23.50
		12	6	22.33	22.50	22.46	23.50



		12	13	22.39	22.50	22.38	23.50
		25	0	22.27	22.52	22.43	23.50
	16QAM	1	0	22.32	22.46	22.48	23.50
		1	13	22.65	22.70	22.73	23.50
		1	24	22.49	22.57	22.47	23.50
		12	0	21.24	21.45	21.39	22.50
		12	6	21.38	21.46	21.49	22.50
		12	13	21.36	21.45	21.37	22.50
		25	0	21.27	21.42	21.34	22.50
		64QAM	1	0	21.26	21.41	21.44
	1		13	21.52	21.68	21.69	22.50
	1		24	21.38	21.53	21.50	22.50
	12		0	20.24	20.43	20.40	21.50
	12		6	20.37	20.45	20.46	21.50
	12		13	20.38	20.44	20.35	21.50
	25		0	20.31	20.41	20.36	21.50
	Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)		
20800/2505					21100/2535	21400/2565	
10MHz	QPSK	1	0	23.05	23.22	23.20	24.50
		1	25	23.37	23.44	23.41	24.50
		1	49	23.18	23.28	23.24	24.50
		25	0	22.22	22.54	22.44	23.50
		25	13	22.36	22.55	22.50	23.50
		25	25	22.41	22.54	22.43	23.50
		50	0	22.31	22.54	22.47	23.50
	16QAM	1	0	22.36	22.49	22.50	23.50
		1	25	22.69	22.74	22.76	23.50
		1	49	22.52	22.59	22.50	23.50
		25	0	21.27	21.50	21.43	22.50
		25	13	21.40	21.50	21.52	22.50
		25	25	21.39	21.50	21.41	22.50
		50	0	21.30	21.47	21.38	22.50
	64QAM	1	0	21.28	21.40	21.46	22.50
		1	25	21.55	21.68	21.72	22.50
		1	49	21.37	21.55	21.53	22.50
		25	0	20.27	20.48	20.40	21.50
		25	13	20.39	20.49	20.49	21.50
		25	25	20.41	20.49	20.39	21.50
		50	0	20.34	20.46	20.40	21.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				20825/2507.5	21100/2535	21375/2562.5	
15MHz	QPSK	1	0	23.04	23.18	23.18	24.50
		1	38	23.35	23.43	23.38	24.50



		1	74	23.15	23.23	23.20	24.50		
		36	0	22.20	22.50	22.41	23.50		
		36	18	22.33	22.50	22.46	23.50		
		36	39	22.38	22.51	22.39	23.50		
		75	0	22.29	22.50	22.42	23.50		
		1	0	22.34	22.47	22.48	23.50		
		1	38	22.67	22.71	22.74	23.50		
	16QAM	1	74	22.50	22.55	22.47	23.50		
		36	0	21.24	21.48	21.40	22.50		
		36	18	21.37	21.45	21.48	22.50		
		36	39	21.37	21.46	21.38	22.50		
		75	0	21.27	21.42	21.34	22.50		
		1	0	21.23	21.38	21.44	22.50		
		1	38	21.53	21.65	21.70	22.50		
	64QAM	1	74	21.38	21.54	21.54	22.50		
		36	0	20.26	20.50	20.41	21.50		
		36	18	20.37	20.46	20.48	21.50		
		36	39	20.39	20.45	20.36	21.50		
		75	0	20.31	20.41	20.36	21.50		
		Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
						20850/2510	21100/2535	21350/2560	
20MHz	QPSK	1	0	23.01	23.14	23.15	24.50		
		1	50	23.34	23.39	23.40	24.50		
		1	99	23.13	23.22	23.17	24.50		
		50	0	22.17	22.45	22.37	23.50		
		50	25	22.31	22.46	22.43	23.50		
		50	50	22.35	22.46	22.35	23.50		
		100	0	22.26	22.45	22.38	23.50		
	16QAM	1	0	22.31	22.43	22.43	23.50		
		1	50	22.64	22.69	22.70	23.50		
		1	99	22.47	22.52	22.45	23.50		
		50	0	21.21	21.44	21.37	22.50		
		50	25	21.34	21.43	21.45	22.50		
		50	50	21.34	21.41	21.34	22.50		
		100	0	21.25	21.38	21.31	22.50		
	64QAM	1	0	21.21	21.34	21.39	22.50		
		1	50	21.49	21.63	21.66	22.50		
		1	99	21.32	21.48	21.48	22.50		
		50	0	20.21	20.42	20.34	21.50		
		50	25	20.33	20.42	20.42	21.50		
		50	50	20.36	20.40	20.32	21.50		
		100	0	20.29	20.37	20.33	21.50		



LTE Band7							
DSI1				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				20775/2502.5	21100/2535	21425/2567.5	
5MHz	QPSK	1	0	23.08	23.19	23.25	24.50
		1	13	23.34	23.47	23.49	24.50
		1	24	23.27	23.33	23.33	24.50
		12	0	22.29	22.59	22.47	23.50
		12	6	22.38	22.55	22.57	23.50
		12	13	22.48	22.51	22.45	23.50
		25	0	22.35	22.55	22.48	23.50
	16QAM	1	0	22.45	22.56	22.63	23.50
		1	13	22.72	22.75	22.82	23.50
		1	24	22.59	22.60	22.63	23.50
		12	0	21.27	21.53	21.44	22.50
		12	6	21.41	21.55	21.55	22.50
		12	13	21.44	21.54	21.45	22.50
		25	0	21.32	21.54	21.46	22.50
	64QAM	1	0	21.40	21.51	21.50	22.50
		1	13	21.72	21.72	21.75	22.50
		1	24	21.53	21.59	21.55	22.50
		12	0	20.26	20.52	20.43	21.50
		12	6	20.42	20.53	20.54	21.50
		12	13	20.43	20.52	20.43	21.50
		25	0	20.34	20.52	20.45	21.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				20800/2505	21100/2535	21400/2565	
10MHz	QPSK	1	0	23.07	23.18	23.24	24.50
		1	25	23.35	23.48	23.50	24.50
		1	49	23.26	23.32	23.32	24.50
		25	0	22.29	22.59	22.47	23.50
		25	13	22.39	22.56	22.56	23.50
		25	25	22.48	22.53	22.46	23.50
		50	0	22.39	22.56	22.50	23.50
	16QAM	1	0	22.49	22.55	22.62	23.50
		1	25	22.76	22.77	22.82	23.50
		1	49	22.59	22.60	22.62	23.50
		25	0	21.28	21.54	21.45	22.50
		25	13	21.40	21.54	21.54	22.50
		25	25	21.44	21.54	21.45	22.50
		50	0	21.33	21.55	21.45	22.50
	64QAM	1	0	21.39	21.50	21.49	22.50





Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up	
				20825/2507.5	21100/2535	21375/2562.5		
		1	25	21.72	21.74	21.75	22.50	
		1	49	21.53	21.59	21.54	22.50	
		25	0	20.27	20.53	20.44	21.50	
		25	13	20.41	20.52	20.53	21.50	
		25	25	20.43	20.52	20.43	21.50	
		50	0	20.35	20.53	20.44	21.50	
15MHz	QPSK	1	0	23.06	23.14	23.22	24.50	
		1	38	23.33	23.47	23.47	24.50	
		1	74	23.23	23.27	23.28	24.50	
		36	0	22.27	22.55	22.44	23.50	
		36	18	22.36	22.51	22.52	23.50	
		36	39	22.45	22.50	22.42	23.50	
		75	0	22.37	22.52	22.45	23.50	
	16QAM	1	0	22.47	22.53	22.60	23.50	
		1	38	22.74	22.74	22.80	23.50	
		1	74	22.57	22.56	22.59	23.50	
		36	0	21.25	21.52	21.42	22.50	
		36	18	21.37	21.49	21.50	22.50	
		36	39	21.42	21.50	21.42	22.50	
		75	0	21.30	21.50	21.41	22.50	
	64QAM	1	0	21.34	21.48	21.47	22.50	
		1	38	21.70	21.71	21.73	22.50	
		1	74	21.54	21.58	21.55	22.50	
		36	0	20.26	20.55	20.45	21.50	
		36	18	20.39	20.49	20.52	21.50	
		36	39	20.41	20.48	20.40	21.50	
		75	0	20.32	20.48	20.40	21.50	
	Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
					20850/2510	21100/2535	21350/2560	
	20MHz	QPSK	1	0	23.03	23.10	23.19	24.50
1			50	23.32	23.43	23.45	24.50	
1			99	23.21	23.26	23.25	24.50	
50			0	22.24	22.50	22.40	23.50	
50			25	22.34	22.47	22.49	23.50	
50			50	22.42	22.45	22.38	23.50	
100			0	22.34	22.47	22.41	23.50	
16QAM		1	0	22.44	22.49	22.55	23.50	
		1	50	22.71	22.72	22.76	23.50	
		1	99	22.54	22.53	22.57	23.50	
		50	0	21.22	21.48	21.39	22.50	
		50	25	21.34	21.47	21.47	22.50	



		50	50	21.39	21.45	21.38	22.50
		100	0	21.28	21.46	21.38	22.50
	64QAM	1	0	21.32	21.44	21.42	22.50
		1	50	21.66	21.69	21.69	22.50
		1	99	21.48	21.52	21.49	22.50
		50	0	20.21	20.47	20.38	21.50
		50	25	20.35	20.45	20.46	21.50
		50	50	20.38	20.43	20.36	21.50
		100	0	20.30	20.44	20.37	21.50

LTE Band7							
DSI4				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				20775/2502.5	21100/2535	21425/2567.5	
5MHz	QPSK	1	0	17.93	18.07	18.00	19.50
		1	13	18.28	18.30	18.17	19.50
		1	24	18.08	18.08	18.05	19.50
		12	0	18.05	18.25	18.09	19.50
		12	6	18.16	18.20	18.17	19.50
		12	13	18.20	18.24	18.10	19.50
		25	0	18.09	18.26	18.15	19.50
	16QAM	1	0	18.42	18.48	18.46	19.50
		1	13	18.67	18.81	18.70	19.50
		1	24	18.54	18.56	18.45	19.50
		12	0	18.05	18.23	18.10	19.50
		12	6	18.18	18.27	18.17	19.50
		12	13	18.18	18.25	18.09	19.50
		25	0	18.06	18.22	18.07	19.50
	64QAM	1	0	18.22	18.27	18.16	19.50
		1	13	18.66	18.51	18.60	19.50
		1	24	18.40	18.41	18.20	19.50
		12	0	18.05	18.18	18.15	19.50
		12	6	18.20	18.24	18.16	19.50
		12	13	18.16	18.24	18.06	19.50
		25	0	18.11	18.22	18.02	19.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
10MHz	QPSK			20800/2505	21100/2535	21400/2565	
		1	0	17.95	18.08	18.03	19.50
		1	25	18.31	18.35	18.21	19.50
		1	49	18.10	18.12	18.08	19.50
		25	0	18.08	18.30	18.13	19.50
		25	13	18.19	18.25	18.21	19.50
25	25	18.22	18.28	18.15	19.50		



	16QAM	50	0	18.13	18.28	18.19	19.50
		1	0	18.46	18.51	18.48	19.50
		1	25	18.71	18.85	18.73	19.50
		1	49	18.57	18.58	18.48	19.50
		25	0	18.08	18.28	18.14	19.50
		25	13	18.20	18.31	18.20	19.50
		25	25	18.21	18.30	18.13	19.50
		50	0	18.09	18.27	18.11	19.50
	64QAM	1	0	18.24	18.26	18.18	19.50
		1	25	18.69	18.51	18.63	19.50
		1	49	18.39	18.43	18.23	19.50
		25	0	18.08	18.23	18.15	19.50
		25	13	18.22	18.28	18.19	19.50
		25	25	18.19	18.29	18.10	19.50
		50	0	18.14	18.27	18.06	19.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				20825/2507.5	21100/2535	21375/2562.5	
15MHz	QPSK	1	0	17.94	18.04	18.01	19.50
		1	38	18.29	18.34	18.18	19.50
		1	74	18.07	18.07	18.04	19.50
		36	0	18.06	18.26	18.10	19.50
		36	18	18.16	18.20	18.17	19.50
		36	39	18.19	18.25	18.11	19.50
		75	0	18.11	18.24	18.14	19.50
	16QAM	1	0	18.44	18.49	18.46	19.50
		1	38	18.69	18.82	18.71	19.50
		1	74	18.55	18.54	18.45	19.50
		36	0	18.05	18.26	18.11	19.50
		36	18	18.17	18.26	18.16	19.50
		36	39	18.19	18.26	18.10	19.50
		75	0	18.06	18.22	18.07	19.50
	64QAM	1	0	18.19	18.24	18.16	19.50
		1	38	18.67	18.48	18.61	19.50
		1	74	18.40	18.42	18.24	19.50
		36	0	18.07	18.25	18.16	19.50
		36	18	18.20	18.25	18.18	19.50
		36	39	18.17	18.25	18.07	19.50
		75	0	18.11	18.22	18.02	19.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				20850/2510	21100/2535	21350/2560	
20MHz	QPSK	1	0	17.91	18.00	17.98	19.50
		1	50	18.28	18.30	18.16	19.50
		1	99	18.05	18.06	18.01	19.50



		50	0	18.03	18.21	18.06	19.50
		50	25	18.14	18.16	18.14	19.50
		50	50	18.16	18.20	18.07	19.50
		100	0	18.08	18.19	18.10	19.50
	16QAM	1	0	18.41	18.45	18.41	19.50
		1	50	18.66	18.80	18.67	19.50
		1	99	18.52	18.51	18.43	19.50
		50	0	18.02	18.22	18.08	19.50
		50	25	18.14	18.24	18.13	19.50
		50	50	18.16	18.21	18.06	19.50
		100	0	18.04	18.18	18.04	19.50
	64QAM	1	0	18.17	18.20	18.11	19.50
		1	50	18.63	18.46	18.57	19.50
		1	99	18.34	18.36	18.18	19.50
		50	0	18.02	18.17	18.09	19.50
		50	25	18.16	18.21	18.12	19.50
		50	50	18.14	18.20	18.03	19.50
		100	0	18.09	18.18	17.99	19.50

LTE Band13							
Full Power&DSI2				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				23205/779.5	23230/782	23255/784.5	
5MHz	QPSK	1	0	23.39	23.40	23.39	25.00
		1	13	23.50	23.53	23.51	25.00
		1	24	23.46	23.45	23.47	25.00
		12	0	22.51	22.53	22.52	24.00
		12	6	22.55	22.57	22.56	24.00
		12	13	22.50	22.52	22.51	24.00
		25	0	22.48	22.50	22.49	24.00
	16QAM	1	0	22.65	22.66	22.67	24.00
		1	13	22.87	22.86	22.88	24.00
		1	24	22.75	22.75	22.74	24.00
		12	0	21.51	21.52	21.51	23.00
		12	6	21.53	21.52	21.53	23.00
		12	13	21.46	21.48	21.47	23.00
		25	0	21.46	21.48	21.47	23.00
	64QAM	1	0	21.50	21.52	21.53	23.00
		1	13	21.78	21.76	21.78	23.00
		1	24	21.67	21.67	21.67	23.00
		12	0	20.61	20.64	20.63	22.00
		12	6	20.61	20.61	20.63	22.00
		12	13	20.50	20.52	20.51	22.00



Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				25	0	20.49	
10MHz	QPSK	1	0	/	23.36	/	25.00
		1	25	/	23.49	/	25.00
		1	49	/	23.44	/	25.00
		25	0	/	22.48	/	24.00
		25	13	/	22.53	/	24.00
		25	25	/	22.47	/	24.00
		50	0	/	22.45	/	24.00
	16QAM	1	0	/	22.62	/	24.00
		1	25	/	22.84	/	24.00
		1	49	/	22.72	/	24.00
		25	0	/	21.48	/	23.00
		25	13	/	21.50	/	23.00
		25	25	/	21.43	/	23.00
		50	0	/	21.44	/	23.00
	64QAM	1	0	/	21.48	/	23.00
		1	25	/	21.74	/	23.00
		1	49	/	21.61	/	23.00
		25	0	/	20.56	/	22.00
		25	13	/	20.57	/	22.00
		25	25	/	20.47	/	22.00
		50	0	/	20.47	/	22.00

LTE Band13							
DSI1&DSI4				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				23205/779.5	23230/782	23255/784.5	
5MHz	QPSK	1	0	23.43	23.44	23.43	24.50
		1	13	23.57	23.60	23.58	24.50
		1	24	23.51	23.50	23.52	24.50
		12	0	22.56	22.58	22.57	23.50
		12	6	22.58	22.60	22.59	23.50
		12	13	22.48	22.50	22.49	23.50
		25	0	22.53	22.55	22.54	23.50
	16QAM	1	0	22.69	22.70	22.71	23.50
		1	13	22.88	22.87	22.89	23.50
		1	24	22.81	22.81	22.80	23.50
		12	0	21.53	21.54	21.53	22.50
		12	6	21.55	21.54	21.55	22.50
		12	13	21.49	21.51	21.50	22.50
		25	0	21.52	21.54	21.53	22.50



Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				/	23230/782	/	
	64QAM	1	0	21.56	21.58	21.59	22.50
		1	13	21.80	21.78	21.80	22.50
		1	24	21.68	21.68	21.68	22.50
		12	0	20.59	20.62	20.61	21.50
		12	6	20.60	20.60	20.62	21.50
		12	13	20.52	20.54	20.53	21.50
		25	0	20.54	20.56	20.55	21.50
10MHz	QPSK	1	0	/	23.40	/	24.50
		1	25	/	23.56	/	24.50
		1	49	/	23.49	/	24.50
		25	0	/	22.53	/	23.50
		25	13	/	22.56	/	23.50
		25	25	/	22.45	/	23.50
		50	0	/	22.50	/	23.50
	16QAM	1	0	/	22.66	/	23.50
		1	25	/	22.85	/	23.50
		1	49	/	22.78	/	23.50
		25	0	/	21.50	/	22.50
		25	13	/	21.52	/	22.50
		25	25	/	21.46	/	22.50
		50	0	/	21.50	/	22.50
	64QAM	1	0	/	21.54	/	22.50
		1	25	/	21.76	/	22.50
		1	49	/	21.62	/	22.50
		25	0	/	20.54	/	21.50
		25	13	/	20.56	/	21.50
		25	25	/	20.49	/	21.50
		50	0	/	20.52	/	21.50

LTE Band26							
Full Power&DSI2				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				26697/814.7	26865/831.5	27033/848.3	
1.4MHz	QPSK	1	0	23.42	23.44	23.42	25.00
		1	2	23.57	23.57	23.52	25.00
		1	5	23.49	23.42	23.41	25.00
		3	0	23.51	23.59	23.54	25.00
		3	2	23.56	23.62	23.57	25.00
		3	3	23.50	23.50	23.50	25.00
		6	0	22.57	22.65	22.62	24.00
	16QAM	1	0	22.75	22.76	22.72	24.00



		1	2	22.86	22.92	22.81	24.00
		1	5	22.84	22.78	22.69	24.00
		3	0	22.45	22.51	22.49	24.00
		3	2	22.53	22.53	22.51	24.00
		3	3	22.47	22.51	22.41	24.00
		6	0	21.53	21.62	21.62	23.00
	64QAM	1	0	21.48	21.54	21.61	23.00
		1	2	21.69	21.72	21.68	23.00
		1	5	21.59	21.66	21.58	23.00
		3	0	21.47	21.52	21.49	23.00
		3	2	21.55	21.57	21.57	23.00
		3	3	21.45	21.50	21.44	23.00
		6	0	20.51	20.58	20.59	22.00
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				26705/815.5	26865/831.5	27025/847.5	
3MHz	QPSK	1	0	23.44	23.48	23.45	25.00
		1	7	23.55	23.60	23.56	25.00
		1	14	23.52	23.47	23.45	25.00
		8	0	22.61	22.71	22.67	24.00
		8	4	22.68	22.72	22.69	24.00
		8	7	22.60	22.61	22.60	24.00
		15	0	22.57	22.69	22.65	24.00
	16QAM	1	0	22.75	22.78	22.75	24.00
		1	7	22.86	22.92	22.85	24.00
		1	14	22.86	22.82	22.72	24.00
		8	0	21.56	21.64	21.61	23.00
		8	4	21.64	21.66	21.63	23.00
		8	7	21.57	21.63	21.54	23.00
		15	0	21.56	21.66	21.65	23.00
	64QAM	1	0	21.51	21.56	21.64	23.00
		1	7	21.72	21.72	21.70	23.00
		1	14	21.61	21.65	21.61	23.00
		8	0	20.58	20.65	20.61	22.00
		8	4	20.66	20.70	20.69	22.00
		8	7	20.55	20.62	20.57	22.00
		15	0	20.54	20.62	20.62	22.00
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				26715/816.5	26865/831.5	27015/846.5	
5MHz	QPSK	1	0	23.43	23.47	23.44	25.00
		1	13	23.56	23.61	23.57	25.00
		1	24	23.51	23.46	23.44	25.00
		12	0	22.61	22.71	22.67	24.00
		12	6	22.69	22.73	22.68	24.00





		12	13	22.60	22.63	22.61	24.00	
		25	0	22.61	22.70	22.67	24.00	
	16QAM	1	0	22.79	22.77	22.74	24.00	
			13	22.90	22.94	22.85	24.00	
		1	24	22.86	22.82	22.71	24.00	
			12	0	21.57	21.65	21.62	23.00
		12	6	21.63	21.65	21.62	23.00	
			13	21.57	21.63	21.54	23.00	
		25	0	21.57	21.67	21.64	23.00	
			0	21.50	21.55	21.63	23.00	
	64QAM	1	13	21.72	21.74	21.70	23.00	
			24	21.61	21.65	21.60	23.00	
		12	0	20.59	20.66	20.62	22.00	
			6	20.65	20.69	20.68	22.00	
		12	13	20.55	20.62	20.57	22.00	
			0	20.55	20.63	20.61	22.00	
Bandwidth		Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				26740/819	26865/831.5	26990/844		
10MHz	QPSK	1	0	23.42	23.43	23.42	25.00	
		1	25	23.54	23.60	23.54	25.00	
		1	49	23.48	23.41	23.40	25.00	
		25	0	22.59	22.67	22.64	24.00	
			13	22.66	22.68	22.64	24.00	
		25	25	22.57	22.60	22.57	24.00	
			50	0	22.59	22.66	22.62	24.00
	16QAM	1	0	22.77	22.75	22.72	24.00	
			25	22.88	22.91	22.83	24.00	
		1	49	22.84	22.78	22.68	24.00	
			25	0	21.54	21.63	21.59	23.00
		25	13	21.60	21.60	21.58	23.00	
			25	25	21.55	21.59	21.51	23.00
		50	0	21.54	21.62	21.60	23.00	
	64QAM	1	0	21.45	21.53	21.61	23.00	
			25	21.70	21.71	21.68	23.00	
		1	49	21.62	21.64	21.61	23.00	
			25	0	20.58	20.68	20.63	22.00
		25	13	20.63	20.66	20.67	22.00	
			25	25	20.53	20.58	20.54	22.00
		50	0	20.52	20.58	20.57	22.00	
	Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
					26765/821.5	26865/831.5	26965/841.5	
	15MHz	QPSK	1	0	23.39	23.39	23.39	25.00
1			38	23.53	23.56	23.52	25.00	



		1	74	23.46	23.40	23.37	25.00
		36	0	22.56	22.64	22.60	24.00
		36	18	22.64	22.64	22.61	24.00
		36	39	22.54	22.55	22.53	24.00
		75	0	22.56	22.61	22.58	24.00
	16QAM	1	0	22.74	22.71	22.67	24.00
		1	38	22.85	22.89	22.79	24.00
		1	74	22.81	22.75	22.66	24.00
		36	0	21.51	21.59	21.56	23.00
		36	18	21.57	21.58	21.55	23.00
		36	39	21.52	21.54	21.47	23.00
		75	0	21.52	21.58	21.57	23.00
	64QAM	1	0	21.43	21.49	21.56	23.00
		1	38	21.66	21.69	21.64	23.00
		1	74	21.56	21.58	21.55	23.00
		36	0	20.53	20.60	20.56	22.00
		36	18	20.59	20.62	20.61	22.00
		36	39	20.50	20.53	20.50	22.00
		75	0	20.50	20.54	20.54	22.00

LTE Band26							
DSI1&DSI4				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				26697/814.7	26865/831.5	27033/848.3	
1.4MHz	QPSK	1	0	23.41	23.44	23.44	24.50
		1	2	23.61	23.60	23.51	24.50
		1	5	23.49	23.44	23.40	24.50
		3	0	23.54	23.63	23.57	24.50
		3	2	23.57	23.63	23.57	24.50
		3	3	23.50	23.56	23.50	24.50
		6	0	22.61	22.65	22.62	23.50
	16QAM	1	0	22.64	22.68	22.71	23.50
		1	2	22.79	22.83	22.82	23.50
		1	5	22.76	22.65	22.62	23.50
		3	0	22.48	22.52	22.50	23.50
		3	2	22.58	22.53	22.55	23.50
		3	3	22.46	22.52	22.41	23.50
		6	0	21.56	21.64	21.64	22.50
	64QAM	1	0	21.65	21.70	21.63	22.50
		1	2	21.79	21.85	21.77	22.50
		1	5	21.67	21.74	21.60	22.50
		3	0	21.50	21.51	21.52	22.50
		3	2	21.58	21.58	21.52	22.50



Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up	
				26705/815.5	26865/831.5	27025/847.5		
				3	3	21.47		21.49
6	0	20.55	20.64	20.59	21.50			
3MHz	QPSK	1	0	23.40	23.46	23.43	24.50	
		1	7	23.57	23.59	23.52	24.50	
		1	14	23.49	23.44	23.40	24.50	
		8	0	22.61	22.70	22.66	23.50	
		8	4	22.67	22.69	22.64	23.50	
		8	7	22.58	22.65	22.56	23.50	
		15	0	22.61	22.68	22.63	23.50	
	16QAM	1	0	22.64	22.66	22.71	23.50	
		1	7	22.79	22.81	22.83	23.50	
		1	14	22.75	22.67	22.61	23.50	
		8	0	21.57	21.61	21.59	22.50	
		8	4	21.66	21.61	21.63	22.50	
		8	7	21.53	21.59	21.50	22.50	
		15	0	21.57	21.64	21.62	22.50	
	64QAM	1	0	21.65	21.72	21.63	22.50	
		1	7	21.79	21.87	21.76	22.50	
		1	14	21.70	21.71	21.59	22.50	
		8	0	20.59	20.60	20.65	21.50	
		8	4	20.66	20.66	20.60	21.50	
		8	7	20.54	20.56	20.54	21.50	
		15	0	20.56	20.64	20.57	21.50	
	Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
					26715/816.5	26865/831.5	27015/846.5	
					1	0	23.42	
5MHz	QPSK	1	13	23.60	23.64	23.56	24.50	
		1	24	23.51	23.48	23.43	24.50	
		12	0	22.64	22.75	22.70	23.50	
		12	6	22.70	22.74	22.68	23.50	
		12	13	22.60	22.69	22.61	23.50	
		25	0	22.65	22.70	22.67	23.50	
		16QAM	1	0	22.68	22.69	22.73	23.50
	1		13	22.83	22.85	22.86	23.50	
	1		24	22.78	22.69	22.64	23.50	
	12		0	21.60	21.66	21.63	22.50	
	12		6	21.68	21.65	21.66	22.50	
	12		13	21.56	21.64	21.54	22.50	
	25		0	21.60	21.69	21.66	22.50	
	64QAM	1	0	21.67	21.71	21.65	22.50	
		1	13	21.82	21.87	21.79	22.50	



Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up	
				26740/819	26865/831.5	26990/844		
		1	24	21.69	21.73	21.62	22.50	
		12	0	20.62	20.65	20.65	21.50	
		12	6	20.68	20.70	20.63	21.50	
		12	13	20.57	20.61	20.58	21.50	
		25	0	20.59	20.69	20.61	21.50	
10MHz	QPSK	1	0	23.41	23.43	23.44	24.50	
		1	25	23.58	23.63	23.53	24.50	
		1	49	23.48	23.43	23.39	24.50	
		25	0	22.62	22.71	22.67	23.50	
		25	13	22.67	22.69	22.64	23.50	
		25	25	22.57	22.66	22.57	23.50	
		50	0	22.63	22.66	22.62	23.50	
	16QAM	1	0	22.66	22.67	22.71	23.50	
		1	25	22.81	22.82	22.84	23.50	
		1	49	22.76	22.65	22.61	23.50	
		25	0	21.57	21.64	21.60	22.50	
		25	13	21.65	21.60	21.62	22.50	
		25	25	21.54	21.60	21.51	22.50	
		50	0	21.57	21.64	21.62	22.50	
	64QAM	1	0	21.62	21.69	21.63	22.50	
		1	25	21.80	21.84	21.77	22.50	
		1	49	21.70	21.72	21.63	22.50	
		25	0	20.61	20.67	20.66	21.50	
		25	13	20.66	20.67	20.62	21.50	
		25	25	20.55	20.57	20.55	21.50	
		50	0	20.56	20.64	20.57	21.50	
	Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
					26765/821.5	26865/831.5	26965/841.5	
	15MHz	QPSK	1	0	23.38	23.39	23.41	24.50
			1	38	23.57	23.59	23.51	24.50
			1	74	23.46	23.42	23.36	24.50
			36	0	22.59	22.66	22.63	23.50
			36	18	22.65	22.65	22.61	23.50
36			39	22.54	22.61	22.53	23.50	
75			0	22.60	22.61	22.58	23.50	
16QAM		1	0	22.63	22.63	22.66	23.50	
		1	38	22.78	22.80	22.80	23.50	
		1	74	22.73	22.62	22.59	23.50	
		36	0	21.54	21.60	21.57	22.50	
		36	18	21.62	21.58	21.59	22.50	
		36	39	21.51	21.55	21.47	22.50	



	64QAM	75	0	21.55	21.60	21.59	22.50
		1	0	21.60	21.65	21.58	22.50
		1	38	21.76	21.82	21.73	22.50
		1	74	21.64	21.66	21.57	22.50
		36	0	20.56	20.59	20.59	21.50
		36	18	20.62	20.63	20.56	21.50
		36	39	20.52	20.52	20.51	21.50
		75	0	20.54	20.60	20.54	21.50

LTE Band38							
Full Power&DSI2				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				37775/2572.5	38000/2595	38225/2617.5	
5MHz	QPSK	1	0	23.08	23.14	23.09	25.00
		1	13	23.30	23.30	23.33	25.00
		1	24	23.15	23.17	23.11	25.00
		12	0	22.22	22.23	22.23	24.00
		12	6	22.28	22.30	22.29	24.00
		12	13	22.31	22.25	22.22	24.00
		25	0	22.22	22.25	22.25	24.00
	16QAM	1	0	22.24	22.26	22.28	24.00
		1	13	22.54	22.48	22.55	24.00
		1	24	22.34	22.34	22.30	24.00
		12	0	21.25	21.23	21.24	23.00
		12	6	21.33	21.34	21.37	23.00
		12	13	21.32	21.29	21.27	23.00
		25	0	21.29	21.25	21.28	23.00
	64QAM	1	0	21.23	21.14	21.12	23.00
		1	13	21.45	21.37	21.41	23.00
		1	24	21.18	21.22	21.10	23.00
		12	0	20.23	20.22	20.25	22.00
		12	6	20.29	20.28	20.33	22.00
		12	13	20.31	20.31	20.24	22.00
		25	0	20.26	20.25	20.28	22.00
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				37800/2575	38000/2595	38200/2615	
10MHz	QPSK	1	0	23.07	23.13	23.08	25.00
		1	25	23.31	23.31	23.34	25.00
		1	49	23.14	23.16	23.10	25.00
		25	0	22.22	22.23	22.23	24.00
		25	13	22.29	22.31	22.28	24.00
		25	25	22.31	22.27	22.23	24.00
		50	0	22.26	22.26	22.27	24.00



	16QAM	1	0	22.28	22.25	22.27	24.00
		1	25	22.58	22.50	22.55	24.00
		1	49	22.34	22.34	22.29	24.00
		25	0	21.26	21.24	21.25	23.00
		25	13	21.32	21.33	21.36	23.00
		25	25	21.32	21.29	21.27	23.00
		50	0	21.30	21.26	21.27	23.00
	64QAM	1	0	21.22	21.13	21.11	23.00
		1	25	21.45	21.39	21.41	23.00
		1	49	21.18	21.22	21.09	23.00
		25	0	20.24	20.23	20.26	22.00
		25	13	20.28	20.27	20.32	22.00
		25	25	20.31	20.31	20.24	22.00
		50	0	20.27	20.26	20.27	22.00
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				37825/2577.5	38000/2595	38175/2612.5	
15MHz	QPSK	1	0	23.06	23.09	23.06	25.00
		1	38	23.29	23.30	23.31	25.00
		1	74	23.11	23.11	23.06	25.00
		36	0	22.20	22.19	22.20	24.00
		36	18	22.26	22.26	22.24	24.00
		36	39	22.28	22.24	22.19	24.00
		75	0	22.24	22.22	22.22	24.00
	16QAM	1	0	22.26	22.23	22.25	24.00
		1	38	22.56	22.47	22.53	24.00
		1	74	22.32	22.30	22.26	24.00
		36	0	21.23	21.22	21.22	23.00
		36	18	21.29	21.28	21.32	23.00
		36	39	21.30	21.25	21.24	23.00
		75	0	21.27	21.21	21.23	23.00
	64QAM	1	0	21.17	21.11	21.09	23.00
		1	38	21.43	21.36	21.39	23.00
		1	74	21.19	21.21	21.10	23.00
		36	0	20.23	20.25	20.27	22.00
		36	18	20.26	20.24	20.31	22.00
		36	39	20.29	20.27	20.21	22.00
		75	0	20.24	20.21	20.23	22.00
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				37850/2580	38000/2595	38150/2610	
20MHz	QPSK	1	0	23.03	23.05	23.03	25.00
		1	50	23.28	23.26	23.29	25.00
		1	99	23.09	23.10	23.03	25.00
		50	0	22.17	22.14	22.16	24.00



		50	25	22.24	22.22	22.21	24.00	
		50	50	22.25	22.19	22.15	24.00	
		100	0	22.21	22.17	22.18	24.00	
	16QAM		1	0	22.23	22.19	22.20	24.00
			1	50	22.53	22.45	22.49	24.00
			1	99	22.29	22.27	22.24	24.00
			50	0	21.20	21.18	21.19	23.00
			50	25	21.26	21.26	21.29	23.00
			50	50	21.27	21.20	21.20	23.00
			100	0	21.25	21.17	21.20	23.00
			64QAM		1	0	21.15	21.07
	1	50			21.39	21.34	21.35	23.00
	1	99			21.13	21.15	21.04	23.00
	50	0			20.18	20.17	20.20	22.00
	50	25			20.22	20.20	20.25	22.00
	50	50			20.26	20.22	20.17	22.00
	100	0			20.22	20.17	20.20	22.00

LTE Band38							
DSI4				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				37775/2572.5	38000/2595	38225/2617.5	
5MHz	QPSK	1	0	20.83	20.77	20.62	22.50
		1	13	20.91	20.89	20.62	22.50
		1	24	20.75	20.70	20.78	22.50
		12	0	20.85	20.80	20.80	22.50
		12	6	20.91	20.84	20.76	22.50
		12	13	20.88	20.82	20.79	22.50
		25	0	20.83	20.84	20.90	22.50
		16QAM	1	0	21.03	20.91	21.12
	1		13	21.19	21.07	20.86	22.50
	1		24	20.94	20.93	20.81	22.50
	12		0	20.90	20.78	20.85	22.50
	12		6	21.00	20.87	20.77	22.50
	12		13	20.91	20.79	20.79	22.50
	25		0	20.88	20.80	20.73	22.50
	64QAM		1	0	20.90	20.80	20.96
		1	13	21.05	20.96	20.65	22.50
		1	24	20.83	20.75	20.58	22.50
		12	0	19.90	19.81	19.87	21.50
		12	6	19.95	19.79	19.74	21.50
		12	13	19.90	19.79	19.82	21.50
		25	0	19.83	19.81	19.83	21.50





Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				37800/2575	38000/2595	38200/2615	
10MHz	QPSK	1	0	20.85	20.78	20.65	22.50
		1	25	20.94	20.94	20.66	22.50
		1	49	20.77	20.74	20.81	22.50
		25	0	20.88	20.85	20.84	22.50
		25	13	20.94	20.89	20.80	22.50
		25	25	20.90	20.86	20.84	22.50
		50	0	20.87	20.86	20.94	22.50
	16QAM	1	0	21.07	20.94	21.14	22.50
		1	25	21.23	21.11	20.89	22.50
		1	49	20.97	20.95	20.84	22.50
		25	0	20.93	20.83	20.89	22.50
		25	13	21.02	20.91	20.80	22.50
		25	25	20.94	20.84	20.83	22.50
		50	0	20.91	20.85	20.77	22.50
	64QAM	1	0	20.92	20.79	20.98	22.50
		1	25	21.08	20.96	20.68	22.50
		1	49	20.82	20.77	20.61	22.50
		25	0	19.93	19.86	19.87	21.50
		25	13	19.97	19.83	19.77	21.50
		25	25	19.93	19.84	19.86	21.50
		50	0	19.86	19.86	19.87	21.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
15MHz	QPSK	1	0	20.84	20.74	20.63	22.50
		1	38	20.92	20.93	20.63	22.50
		1	74	20.74	20.69	20.77	22.50
		36	0	20.86	20.81	20.81	22.50
		36	18	20.91	20.84	20.76	22.50
		36	39	20.87	20.83	20.80	22.50
		75	0	20.85	20.82	20.89	22.50
	16QAM	1	0	21.05	20.92	21.12	22.50
		1	38	21.21	21.08	20.87	22.50
		1	74	20.95	20.91	20.81	22.50
		36	0	20.90	20.81	20.86	22.50
		36	18	20.99	20.86	20.76	22.50
		36	39	20.92	20.80	20.80	22.50
		75	0	20.88	20.80	20.73	22.50
	64QAM	1	0	20.87	20.77	20.96	22.50
		1	38	21.06	20.93	20.66	22.50
		1	74	20.83	20.76	20.62	22.50
		36	0	19.92	19.88	19.88	21.50



Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				37850/2580	38000/2595	38150/2610	
20MHz	QPSK	36	18	19.95	19.80	19.76	21.50
		36	39	19.91	19.80	19.83	21.50
		75	0	19.83	19.81	19.83	21.50
		1	0	20.81	20.70	20.60	22.50
		1	50	20.91	20.89	20.61	22.50
		1	99	20.72	20.68	20.74	22.50
		50	0	20.83	20.76	20.77	22.50
	50	25	20.89	20.80	20.73	22.50	
	50	50	20.84	20.78	20.76	22.50	
	100	0	20.82	20.77	20.85	22.50	
	16QAM	1	0	21.02	20.88	21.07	22.50
		1	50	21.18	21.06	20.83	22.50
		1	99	20.92	20.88	20.79	22.50
		50	0	20.87	20.77	20.83	22.50
		50	25	20.96	20.84	20.73	22.50
		50	50	20.89	20.75	20.76	22.50
		100	0	20.86	20.76	20.70	22.50
	64QAM	1	0	20.85	20.73	20.91	22.50
		1	50	21.02	20.91	20.62	22.50
		1	99	20.77	20.70	20.56	22.50
		50	0	19.87	19.80	19.81	21.50
		50	25	19.91	19.76	19.70	21.50
		50	50	19.88	19.75	19.79	21.50
		100	0	19.81	19.77	19.80	21.50

LTE Band38							
DSI1				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				37775/2572.5	38000/2595	38225/2617.5	
5MHz	QPSK	1	0	23.12	23.15	23.11	24.50
		1	13	23.34	23.34	23.37	24.50
		1	24	23.16	23.17	23.16	24.50
		12	0	22.22	22.21	22.25	23.50
		12	6	22.31	22.28	22.31	23.50
		12	13	22.31	22.27	22.25	23.50
		25	0	22.26	22.27	22.30	23.50
	16QAM	1	0	22.35	22.27	22.32	23.50
		1	13	22.59	22.55	22.59	23.50
		1	24	22.34	22.34	22.33	23.50
		12	0	21.27	21.22	21.27	22.50
		12	6	21.40	21.33	21.35	22.50



Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up	
				37800/2575	38000/2595	38200/2615		
	64QAM	12	13	21.33	21.31	21.30	22.50	
		25	0	21.29	21.26	21.28	22.50	
		1	0	21.21	21.18	21.19	22.50	
		1	13	21.47	21.43	21.43	22.50	
		1	24	21.23	21.21	21.17	22.50	
		12	0	20.25	20.25	20.30	21.50	
		12	6	20.33	20.28	20.37	21.50	
		12	13	20.27	20.29	20.26	21.50	
		25	0	20.27	20.28	20.28	21.50	
10MHz	QPSK	1	0	23.14	23.16	23.14	24.50	
		1	25	23.37	23.39	23.41	24.50	
		1	49	23.18	23.21	23.19	24.50	
		25	0	22.25	22.26	22.29	23.50	
		25	13	22.34	22.33	22.35	23.50	
		25	25	22.33	22.31	22.30	23.50	
		50	0	22.30	22.29	22.34	23.50	
	16QAM	1	0	22.39	22.30	22.34	23.50	
		1	25	22.63	22.59	22.62	23.50	
		1	49	22.37	22.36	22.36	23.50	
		25	0	21.30	21.27	21.31	22.50	
		25	13	21.42	21.37	21.38	22.50	
		25	25	21.36	21.36	21.34	22.50	
		50	0	21.32	21.31	21.32	22.50	
	64QAM	1	0	21.23	21.17	21.21	22.50	
		1	25	21.50	21.43	21.46	22.50	
		1	49	21.22	21.23	21.20	22.50	
		25	0	20.28	20.30	20.30	21.50	
		25	13	20.35	20.32	20.40	21.50	
		25	25	20.30	20.34	20.30	21.50	
		50	0	20.30	20.33	20.32	21.50	
	Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
					37825/2577.5	38000/2595	38175/2612.5	
	15MHz	QPSK	1	0	23.13	23.12	23.12	24.50
1			38	23.35	23.38	23.38	24.50	
1			74	23.15	23.16	23.15	24.50	
36			0	22.23	22.22	22.26	23.50	
36			18	22.31	22.28	22.31	23.50	
36			39	22.30	22.28	22.26	23.50	
75			0	22.28	22.25	22.29	23.50	
16QAM		1	0	22.37	22.28	22.32	23.50	
		1	38	22.61	22.56	22.60	23.50	



Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up		
				37850/2580	38000/2595	38150/2610			
		1	74	22.35	22.32	22.33	23.50		
		36	0	21.27	21.25	21.28	22.50		
		36	18	21.39	21.32	21.34	22.50		
		36	39	21.34	21.32	21.31	22.50		
		75	0	21.29	21.26	21.28	22.50		
	64QAM	1	0	21.18	21.15	21.19	22.50		
		1	38	21.48	21.40	21.44	22.50		
		1	74	21.23	21.22	21.21	22.50		
		36	0	20.27	20.32	20.31	21.50		
		36	18	20.33	20.29	20.39	21.50		
		36	39	20.28	20.30	20.27	21.50		
		75	0	20.27	20.28	20.28	21.50		
		20MHz	QPSK	1	0	23.10	23.08	23.09	24.50
				1	50	23.34	23.34	23.36	24.50
1	99			23.13	23.15	23.12	24.50		
50	0			22.20	22.17	22.22	23.50		
50	25			22.29	22.24	22.28	23.50		
50	50			22.27	22.23	22.22	23.50		
100	0			22.25	22.20	22.25	23.50		
16QAM	1		0	22.34	22.24	22.27	23.50		
	1		50	22.58	22.54	22.56	23.50		
	1		99	22.32	22.29	22.31	23.50		
	50		0	21.24	21.21	21.25	22.50		
	50		25	21.36	21.30	21.31	22.50		
	50		50	21.31	21.27	21.27	22.50		
	100		0	21.27	21.22	21.25	22.50		
64QAM	1		0	21.16	21.11	21.14	22.50		
	1		50	21.44	21.38	21.40	22.50		
	1		99	21.17	21.16	21.15	22.50		
	50		0	20.22	20.24	20.24	21.50		
	50		25	20.29	20.25	20.33	21.50		
	50		50	20.25	20.25	20.23	21.50		
	100		0	20.25	20.24	20.25	21.50		

LTE Band41									
Full Power&DSI2				Maximum Output Power (dBm)					Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)					
				39675/2498.5	40148/2545.8	40620/2593	41093/2640.3	41565/2687.5	
5MHz	QPSK	1	0	23.25	23.22	23.09	23.10	23.10	25.00
		1	13	23.52	23.42	23.42	23.38	23.34	25.00
		1	24	23.28	23.14	23.17	23.13	23.07	25.00



		12	0	22.37	22.37	22.26	22.26	22.28	24.00	
		12	6	22.48	22.43	22.35	22.27	22.35	24.00	
		12	13	22.47	22.39	22.30	22.29	22.31	24.00	
		25	0	22.40	22.45	22.32	22.29	22.32	24.00	
	16QAM	1	0	22.41	22.39	22.34	22.29	22.29	24.00	
		1	13	22.73	22.70	22.61	22.58	22.58	24.00	
		1	24	22.43	22.46	22.35	22.30	22.34	24.00	
		12	0	21.41	21.37	21.28	21.29	21.28	23.00	
		12	6	21.49	21.46	21.36	21.34	21.40	23.00	
		12	13	21.44	21.41	21.33	21.31	21.33	23.00	
		25	0	21.41	21.42	21.32	21.32	21.32	23.00	
	64QAM	1	0	21.35	21.25	21.19	21.18	21.21	23.00	
		1	13	21.61	21.61	21.47	21.47	21.51	23.00	
		1	24	21.34	21.26	21.22	21.20	21.22	23.00	
		12	0	20.40	20.35	20.32	20.30	20.24	22.00	
		12	6	20.49	20.42	20.36	20.38	20.33	22.00	
		12	13	20.46	20.40	20.37	20.29	20.31	22.00	
		25	0	20.38	20.39	20.33	20.32	20.27	22.00	
	Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)					Tune-up
					39700/2501	40160/2547	40620/2593	41080/2639	41540/2685	
	10MHz	QPSK	1	0	23.27	23.23	23.12	23.12	23.11	25.00
1			25	23.55	23.47	23.46	23.41	23.39	25.00	
1			49	23.30	23.18	23.20	23.15	23.11	25.00	
25			0	22.40	22.42	22.30	22.29	22.33	24.00	
25			13	22.51	22.48	22.39	22.30	22.40	24.00	
25			25	22.49	22.43	22.35	22.31	22.35	24.00	
50			0	22.44	22.47	22.36	22.33	22.34	24.00	
16QAM		1	0	22.45	22.42	22.36	22.33	22.32	24.00	
		1	25	22.77	22.74	22.64	22.62	22.62	24.00	
		1	49	22.46	22.48	22.38	22.33	22.36	24.00	
		25	0	21.44	21.42	21.32	21.32	21.33	23.00	
		25	13	21.51	21.50	21.39	21.36	21.44	23.00	
		25	25	21.47	21.46	21.37	21.34	21.38	23.00	
		50	0	21.44	21.47	21.36	21.35	21.37	23.00	
64QAM		1	0	21.37	21.24	21.21	21.20	21.20	23.00	
		1	25	21.64	21.61	21.50	21.50	21.51	23.00	
		1	49	21.33	21.28	21.25	21.19	21.24	23.00	
		25	0	20.43	20.40	20.32	20.33	20.29	22.00	
		25	13	20.51	20.46	20.39	20.40	20.37	22.00	
		25	25	20.49	20.45	20.41	20.32	20.36	22.00	
		50	0	20.41	20.44	20.37	20.35	20.32	22.00	



Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)					Tune-up
				39725/2503.5	40173/2548.3	40620/2593	41068/2637.8	41515/2682.5	
15MHz	QPSK	1	0	23.26	23.19	23.10	23.11	23.07	25.00
		1	38	23.53	23.46	23.43	23.39	23.38	25.00
		1	74	23.27	23.13	23.16	23.12	23.06	25.00
		36	0	22.38	22.38	22.27	22.27	22.29	24.00
		36	18	22.48	22.43	22.35	22.27	22.35	24.00
		36	39	22.46	22.40	22.31	22.28	22.32	24.00
		75	0	22.42	22.43	22.31	22.31	22.30	24.00
	16QAM	1	0	22.43	22.40	22.34	22.31	22.30	24.00
		1	38	22.75	22.71	22.62	22.60	22.59	24.00
		1	74	22.44	22.44	22.35	22.31	22.32	24.00
		36	0	21.41	21.40	21.29	21.29	21.31	23.00
		36	18	21.48	21.45	21.35	21.33	21.39	23.00
		36	39	21.45	21.42	21.34	21.32	21.34	23.00
		75	0	21.41	21.42	21.32	21.32	21.32	23.00
	64QAM	1	0	21.32	21.22	21.19	21.15	21.18	23.00
		1	38	21.62	21.58	21.48	21.48	21.48	23.00
		1	74	21.34	21.27	21.26	21.20	21.23	23.00
		36	0	20.42	20.42	20.33	20.32	20.31	22.00
		36	18	20.49	20.43	20.38	20.38	20.34	22.00
		36	39	20.47	20.41	20.38	20.30	20.32	22.00
		75	0	20.38	20.39	20.33	20.32	20.27	22.00
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)					Tune-up
				39750/2506	40185/2549.5	40620/2593	41055/2636.5	41490/2680	
20MHz	QPSK	1	0	23.23	23.15	23.07	23.08	23.03	25.00
		1	50	23.52	23.42	23.41	23.38	23.34	25.00
		1	99	23.25	23.12	23.13	23.10	23.05	25.00
		50	0	22.35	22.33	22.23	22.24	22.24	24.00
		50	25	22.46	22.39	22.32	22.25	22.31	24.00
		50	50	22.43	22.35	22.27	22.25	22.27	24.00
		100	0	22.39	22.38	22.27	22.28	22.25	24.00
	16QAM	1	0	22.40	22.36	22.29	22.28	22.26	24.00
		1	50	22.72	22.69	22.58	22.57	22.57	24.00
		1	99	22.41	22.41	22.33	22.28	22.29	24.00
		50	0	21.38	21.36	21.26	21.26	21.27	23.00
		50	25	21.45	21.43	21.32	21.30	21.37	23.00
		50	50	21.42	21.37	21.30	21.29	21.29	23.00
		100	0	21.39	21.38	21.29	21.30	21.28	23.00
	64QAM	1	0	21.30	21.18	21.14	21.13	21.14	23.00
		1	50	21.58	21.56	21.44	21.44	21.46	23.00
		1	99	21.28	21.21	21.20	21.14	21.17	23.00



		50	0	20.37	20.34	20.26	20.27	20.23	22.00
		50	25	20.45	20.39	20.32	20.34	20.30	22.00
		50	50	20.44	20.36	20.34	20.27	20.27	22.00
		100	0	20.36	20.35	20.30	20.30	20.23	22.00

LTE Band41									
DSI1				Maximum Output Power (dBm)					Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)					
				39675/2498.5	40148/2545.8	40620/2593	41093/2640.3	41565/2687.5	
5MHz	QPSK	1	0	23.16	23.13	23.14	23.13	23.20	24.50
		1	13	23.44	23.42	23.39	23.36	23.32	24.50
		1	24	23.17	23.20	23.23	23.11	23.17	24.50
		12	0	22.38	22.31	22.27	22.26	22.37	23.50
		12	6	22.43	22.37	22.36	22.31	22.34	23.50
		12	13	22.40	22.38	22.34	22.29	22.26	23.50
		25	0	22.38	22.38	22.34	22.27	22.35	23.50
	16QAM	1	0	22.43	22.34	22.33	22.29	22.44	23.50
		1	13	22.70	22.65	22.59	22.55	22.56	23.50
		1	24	22.43	22.39	22.37	22.34	22.35	23.50
		12	0	21.40	21.31	21.31	21.29	21.23	22.50
		12	6	21.46	21.41	21.38	21.34	21.25	22.50
		12	13	21.39	21.39	21.35	21.25	21.26	22.50
		25	0	21.38	21.36	21.33	21.23	21.34	22.50
	64QAM	1	0	21.28	21.24	21.21	21.23	21.22	22.50
		1	13	21.53	21.55	21.51	21.46	21.49	22.50
		1	24	21.31	21.27	21.24	21.15	21.07	22.50
		12	0	20.39	20.28	20.34	20.29	20.23	21.50
		12	6	20.43	20.37	20.39	20.34	20.31	21.50
		12	13	20.37	20.36	20.35	20.28	20.37	21.50
		25	0	20.38	20.36	20.33	20.27	20.26	21.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)					Tune-up
				39700/2501	40160/2547	40620/2593	41080/2639	41540/2685	
10MHz	QPSK	1	0	23.18	23.14	23.17	23.15	23.21	24.50
		1	25	23.47	23.47	23.43	23.39	23.37	24.50
		1	49	23.19	23.24	23.26	23.13	23.21	24.50
		25	0	22.41	22.36	22.31	22.29	22.42	23.50
		25	13	22.46	22.42	22.40	22.34	22.39	23.50
		25	25	22.42	22.42	22.39	22.31	22.30	23.50
		50	0	22.42	22.40	22.38	22.31	22.37	23.50
	16QAM	1	0	22.47	22.37	22.35	22.33	22.47	23.50
		1	25	22.74	22.69	22.62	22.59	22.60	23.50
		1	49	22.46	22.41	22.40	22.37	22.37	23.50
		25	0	21.43	21.36	21.35	21.32	21.28	22.50





Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)					Tune-up
				39725/2503.5	40173/2548.3	40620/2593	41068/2637.8	41515/2682.5	
	64QAM	25	13	21.48	21.45	21.41	21.36	21.29	22.50
		25	25	21.42	21.44	21.39	21.28	21.31	22.50
		50	0	21.41	21.41	21.37	21.26	21.39	22.50
		1	0	21.30	21.23	21.23	21.25	21.21	22.50
		1	25	21.56	21.55	21.54	21.49	21.49	22.50
		1	49	21.30	21.29	21.27	21.14	21.09	22.50
		25	0	20.42	20.33	20.34	20.32	20.28	21.50
		25	13	20.45	20.41	20.42	20.36	20.35	21.50
		25	25	20.40	20.41	20.39	20.31	20.42	21.50
		50	0	20.41	20.41	20.37	20.30	20.31	21.50
15MHz	QPSK	1	0	23.17	23.10	23.15	23.14	23.17	24.50
		1	38	23.45	23.46	23.40	23.37	23.36	24.50
		1	74	23.16	23.19	23.22	23.10	23.16	24.50
		36	0	22.39	22.32	22.28	22.27	22.38	23.50
		36	18	22.43	22.37	22.36	22.31	22.34	23.50
		36	39	22.39	22.39	22.35	22.28	22.27	23.50
		75	0	22.40	22.36	22.33	22.29	22.33	23.50
	16QAM	1	0	22.45	22.35	22.33	22.31	22.45	23.50
		1	38	22.72	22.66	22.60	22.57	22.57	23.50
		1	74	22.44	22.37	22.37	22.35	22.33	23.50
		36	0	21.40	21.34	21.32	21.29	21.26	22.50
		36	18	21.45	21.40	21.37	21.33	21.24	22.50
		36	39	21.40	21.40	21.36	21.26	21.27	22.50
		75	0	21.38	21.36	21.33	21.23	21.34	22.50
	64QAM	1	0	21.25	21.21	21.21	21.20	21.19	22.50
		1	38	21.54	21.52	21.52	21.47	21.46	22.50
		1	74	21.31	21.28	21.28	21.15	21.08	22.50
		36	0	20.41	20.35	20.35	20.31	20.30	21.50
		36	18	20.43	20.38	20.41	20.34	20.32	21.50
		36	39	20.38	20.37	20.36	20.29	20.38	21.50
		75	0	20.38	20.36	20.33	20.27	20.26	21.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)					Tune-up
				39750/2506	40185/2549.5	40620/2593	41055/2636.5	41490/2680	
20MHz	QPSK	1	0	23.14	23.06	23.12	23.11	23.13	24.50
		1	50	23.44	23.42	23.38	23.36	23.32	24.50
		1	99	23.14	23.18	23.19	23.08	23.15	24.50
		50	0	22.36	22.27	22.24	22.24	22.33	23.50
		50	25	22.41	22.33	22.33	22.29	22.30	23.50
		50	50	22.36	22.34	22.31	22.25	22.22	23.50
		100	0	22.37	22.31	22.29	22.26	22.28	23.50
	16QAM	1	0	22.42	22.31	22.28	22.28	22.41	23.50



		1	50	22.69	22.64	22.56	22.54	22.55	23.50
		1	99	22.41	22.34	22.35	22.32	22.30	23.50
		50	0	21.37	21.30	21.29	21.26	21.22	22.50
		50	25	21.42	21.38	21.34	21.30	21.22	22.50
		50	50	21.37	21.35	21.32	21.23	21.22	22.50
		100	0	21.36	21.32	21.30	21.21	21.30	22.50
	64QAM	1	0	21.23	21.17	21.16	21.18	21.15	22.50
		1	50	21.50	21.50	21.48	21.43	21.44	22.50
		1	99	21.25	21.22	21.22	21.09	21.02	22.50
		50	0	20.36	20.27	20.28	20.26	20.22	21.50
		50	25	20.39	20.34	20.35	20.30	20.28	21.50
		50	50	20.35	20.32	20.32	20.26	20.33	21.50
		100	0	20.36	20.32	20.30	20.25	20.22	21.50

LTE Band41									
DSI4				Maximum Output Power (dBm)					Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)					
				39675/2498.5	40148/2545.8	40620/2593	41093/2640.3	41565/2687.5	
5MHz	QPSK	1	0	21.92	21.88	21.53	21.54	21.58	22.50
		1	13	22.20	22.03	21.80	21.71	21.64	22.50
		1	24	21.95	21.74	21.55	21.55	21.53	22.50
		12	0	22.02	21.97	21.72	21.54	21.60	22.50
		12	6	22.19	22.07	21.77	21.70	21.72	22.50
		12	13	22.15	22.02	21.70	21.67	21.67	22.50
		25	0	22.05	21.99	21.69	21.57	21.65	22.50
	16QAM	1	0	22.09	21.98	21.77	21.60	21.61	22.50
		1	13	22.41	22.27	22.00	21.92	21.81	22.50
		1	24	22.09	21.93	21.72	21.62	21.65	22.50
		12	0	21.12	21.00	20.69	20.66	20.67	22.50
		12	6	21.19	21.09	20.77	20.67	20.75	22.50
		12	13	21.24	21.04	20.73	20.68	20.71	22.50
		25	0	21.08	20.99	20.68	20.61	20.65	22.50
	64QAM	1	0	20.99	20.96	20.60	20.57	20.58	22.50
		1	13	21.31	21.14	20.81	20.81	20.79	22.50
		1	24	21.04	20.88	20.56	20.59	20.59	22.50
		12	0	20.12	20.07	19.78	19.63	19.63	21.50
		12	6	20.21	20.10	19.84	19.77	19.80	21.50
		12	13	20.22	20.04	19.79	19.66	19.67	21.50
		25	0	20.08	20.00	19.68	19.58	19.63	21.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)					Tune-up
10MHz	QPSK	1	0	39700/2501	40160/2547	40620/2593	41080/2639	41540/2685	22.50
		1	25	21.94	21.89	21.56	21.56	21.59	22.50



		1	49	21.97	21.78	21.58	21.57	21.57	22.50	
		25	0	22.05	22.02	21.76	21.57	21.65	22.50	
		25	13	22.22	22.12	21.81	21.73	21.77	22.50	
		25	25	22.17	22.06	21.75	21.69	21.71	22.50	
		50	0	22.09	22.01	21.73	21.61	21.67	22.50	
		16QAM	1	0	22.13	22.01	21.79	21.64	21.64	22.50
			1	25	22.45	22.31	22.03	21.96	21.85	22.50
	1		49	22.12	21.95	21.75	21.65	21.67	22.50	
	25		0	21.15	21.05	20.73	20.69	20.72	22.50	
	25		13	21.21	21.13	20.80	20.69	20.79	22.50	
	25		25	21.27	21.09	20.77	20.71	20.76	22.50	
	64QAM	50	0	21.11	21.04	20.72	20.64	20.70	22.50	
		1	0	21.01	20.95	20.62	20.59	20.57	22.50	
		1	25	21.34	21.14	20.84	20.84	20.79	22.50	
		1	49	21.03	20.90	20.59	20.58	20.61	22.50	
		25	0	20.15	20.12	19.78	19.66	19.68	21.50	
		25	13	20.23	20.14	19.87	19.79	19.84	21.50	
		25	25	20.25	20.09	19.83	19.69	19.72	21.50	
	50	0	20.11	20.05	19.72	19.61	19.68	21.50		
	Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)					Tune-up
					39725/2503.5	40173/2548.3	40620/2593	41068/2637.8	41515/2682.5	
15MHz	QPSK	1	0	21.93	21.85	21.54	21.55	21.55	22.50	
		1	38	22.21	22.07	21.81	21.72	21.68	22.50	
		1	74	21.94	21.73	21.54	21.54	21.52	22.50	
		36	0	22.03	21.98	21.73	21.55	21.61	22.50	
		36	18	22.19	22.07	21.77	21.70	21.72	22.50	
		36	39	22.14	22.03	21.71	21.66	21.68	22.50	
		75	0	22.07	21.97	21.68	21.59	21.63	22.50	
	16QAM	1	0	22.11	21.99	21.77	21.62	21.62	22.50	
		1	38	22.43	22.28	22.01	21.94	21.82	22.50	
		1	74	22.10	21.91	21.72	21.63	21.63	22.50	
		36	0	21.12	21.03	20.70	20.66	20.70	22.50	
		36	18	21.18	21.08	20.76	20.66	20.74	22.50	
		36	39	21.25	21.05	20.74	20.69	20.72	22.50	
		75	0	21.08	20.99	20.68	20.61	20.65	22.50	
	64QAM	1	0	20.96	20.93	20.60	20.54	20.55	22.50	
		1	38	21.32	21.11	20.82	20.82	20.76	22.50	
		1	74	21.04	20.89	20.60	20.59	20.60	22.50	
		36	0	20.14	20.14	19.79	19.65	19.70	21.50	
		36	18	20.21	20.11	19.86	19.77	19.81	21.50	
		36	39	20.23	20.05	19.80	19.67	19.68	21.50	
		75	0	20.08	20.00	19.68	19.58	19.63	21.50	



Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)					Tune-up
				39750/2506	40185/2549.5	40620/2593	41055/2636.5	41490/2680	
20MHz	QPSK	1	0	21.10	21.01	20.71	20.72	20.71	22.50
		1	50	21.40	21.23	20.99	20.91	20.84	22.50
		1	99	21.12	20.92	20.71	20.72	20.71	22.50
		50	0	21.20	21.13	20.89	20.72	20.76	22.50
		50	25	21.37	21.23	20.94	20.88	20.88	22.50
		50	50	21.31	21.18	20.87	20.83	20.83	22.50
		100	0	21.24	21.12	20.84	20.76	20.78	22.50
	16QAM	1	0	21.28	21.15	20.92	20.79	20.78	22.50
		1	50	21.60	21.46	21.17	21.11	21.00	22.50
		1	99	21.27	21.08	20.90	20.80	20.80	22.50
		50	0	21.09	20.99	20.67	20.63	20.66	22.50
		50	25	21.15	21.06	20.73	20.63	20.72	22.50
		50	50	21.22	21.00	20.70	20.66	20.67	22.50
		100	0	21.06	20.95	20.65	20.59	20.61	22.50
	64QAM	1	0	20.94	20.89	20.55	20.52	20.51	22.50
		1	50	21.28	21.09	20.78	20.78	20.74	22.50
		1	99	20.98	20.83	20.54	20.53	20.54	22.50
		50	0	20.09	20.06	19.72	19.60	19.62	21.50
		50	25	20.17	20.07	19.80	19.73	19.77	21.50
		50	50	20.20	20.00	19.76	19.64	19.63	21.50
		100	0	20.06	19.96	19.65	19.56	19.59	21.50

LTE Band66							
Full Power&DSI2				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				131979/1710.7	132322/1745	132665/1779.3	
1.4MHz	QPSK	1	0	23.16	23.23	23.18	25.00
		1	2	23.35	23.35	23.31	25.00
		1	5	23.04	23.06	23.08	25.00
		3	0	23.21	23.38	23.28	25.00
		3	2	23.25	23.31	23.39	25.00
		3	3	23.22	23.18	23.18	25.00
		6	0	22.29	22.34	22.33	24.00
	16QAM	1	0	22.53	22.48	22.58	24.00
		1	2	22.71	22.70	22.64	24.00
		1	5	22.41	22.44	22.36	24.00
		3	0	22.21	22.31	22.29	24.00
		3	2	22.31	22.29	22.36	24.00
		3	3	22.26	22.24	22.15	24.00
		6	0	21.27	21.36	21.36	23.00



Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up	
				131987/1711.5	132322/1745	132657/1778.5		
	64QAM	1	0	21.40	21.50	21.52	23.00	
		1	2	21.56	21.66	21.72	23.00	
		1	5	21.18	21.37	21.42	23.00	
		3	0	21.19	21.32	21.27	23.00	
		3	2	21.30	21.32	21.33	23.00	
		3	3	21.22	21.20	21.14	23.00	
		6	0	20.28	20.33	20.35	22.00	
3MHz	QPSK	1	0	23.18	23.27	23.21	25.00	
		1	7	23.33	23.38	23.35	25.00	
		1	14	23.07	23.11	23.12	25.00	
		8	0	22.31	22.50	22.41	24.00	
		8	4	22.37	22.41	22.51	24.00	
		8	7	22.32	22.29	22.28	24.00	
		15	0	22.29	22.38	22.36	24.00	
	16QAM	1	0	22.53	22.50	22.61	24.00	
		1	7	22.71	22.70	22.68	24.00	
		1	14	22.43	22.48	22.39	24.00	
		8	0	21.32	21.44	21.41	23.00	
		8	4	21.42	21.42	21.48	23.00	
		8	7	21.36	21.36	21.28	23.00	
		15	0	21.30	21.40	21.39	23.00	
	64QAM	1	0	21.43	21.52	21.55	23.00	
		1	7	21.59	21.66	21.74	23.00	
		1	14	21.20	21.36	21.45	23.00	
		8	0	20.30	20.45	20.39	22.00	
		8	4	20.41	20.45	20.45	22.00	
		8	7	20.32	20.32	20.27	22.00	
		15	0	20.31	20.37	20.38	22.00	
	Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
					131997/1712.5	132322/1745	132647/1777.5	
	5MHz	QPSK	1	0	23.15	23.25	23.17	25.00
			1	13	23.31	23.34	23.32	25.00
			1	24	23.04	23.06	23.08	25.00
			12	0	22.28	22.45	22.37	24.00
			12	6	22.35	22.37	22.46	24.00
12			13	22.30	22.27	22.24	24.00	
25			0	22.29	22.37	22.34	24.00	
16QAM		1	0	22.53	22.46	22.58	24.00	
		1	13	22.71	22.68	22.65	24.00	
		1	24	22.40	22.46	22.35	24.00	
		12	0	21.30	21.40	21.38	23.00	



Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up	
				132022/1715	132322/1745	132622/1775		
	64QAM	12	6	21.39	21.37	21.44	23.00	
		12	13	21.33	21.31	21.24	23.00	
		25	0	21.28	21.36	21.34	23.00	
		1	0	21.40	21.52	21.52	23.00	
		1	13	21.56	21.68	21.71	23.00	
		1	24	21.21	21.34	21.41	23.00	
		12	0	20.28	20.41	20.40	22.00	
		12	6	20.38	20.40	20.41	22.00	
		12	13	20.29	20.27	20.23	22.00	
		25	0	20.29	20.33	20.33	22.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up	
				132047/1717.5	132322/1745	132597/1772.5		
10MHz	QPSK	1	0	23.17	23.26	23.20	25.00	
		1	25	23.34	23.39	23.36	25.00	
		1	49	23.06	23.10	23.11	25.00	
		25	0	22.31	22.50	22.41	24.00	
		25	13	22.38	22.42	22.50	24.00	
		25	25	22.32	22.31	22.29	24.00	
		50	0	22.33	22.39	22.38	24.00	
	16QAM	1	0	22.57	22.49	22.60	24.00	
		1	25	22.75	22.72	22.68	24.00	
		1	49	22.43	22.48	22.38	24.00	
		25	0	21.33	21.45	21.42	23.00	
		25	13	21.41	21.41	21.47	23.00	
		25	25	21.36	21.36	21.28	23.00	
		50	0	21.31	21.41	21.38	23.00	
	64QAM	1	0	21.42	21.51	21.54	23.00	
		1	25	21.59	21.68	21.74	23.00	
		1	49	21.20	21.36	21.44	23.00	
		25	0	20.31	20.46	20.40	22.00	
		25	13	20.40	20.44	20.44	22.00	
		25	25	20.32	20.32	20.27	22.00	
		50	0	20.32	20.38	20.37	22.00	
	Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
					132047/1717.5	132322/1745	132597/1772.5	
	15MHz	QPSK	1	0	23.16	23.22	23.18	25.00
1			38	23.32	23.38	23.33	25.00	
1			74	23.03	23.05	23.07	25.00	
36			0	22.29	22.46	22.38	24.00	
36			18	22.35	22.37	22.46	24.00	
36			39	22.29	22.28	22.25	24.00	
75			0	22.31	22.35	22.33	24.00	
16QAM		1	0	22.55	22.47	22.58	24.00	



Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				132072/1720	132322/1745	132572/1770	
20MHz	64QAM	1	38	22.73	22.69	22.66	24.00
		1	74	22.41	22.44	22.35	24.00
		36	0	21.30	21.43	21.39	23.00
		36	18	21.38	21.36	21.43	23.00
		36	39	21.34	21.32	21.25	23.00
		75	0	21.28	21.36	21.34	23.00
		1	0	21.37	21.49	21.52	23.00
	QPSK	1	38	21.57	21.65	21.72	23.00
		1	74	21.21	21.35	21.45	23.00
		36	0	20.30	20.48	20.41	22.00
		36	18	20.38	20.41	20.43	22.00
		36	39	20.30	20.28	20.24	22.00
		75	0	20.29	20.33	20.33	22.00
		16QAM	1	0	22.52	22.43	22.53
1	50		22.70	22.67	22.62	24.00	
1	99		22.38	22.41	22.33	24.00	
50	0		21.27	21.39	21.36	23.00	
50	25		21.35	21.34	21.40	23.00	
50	50		21.31	21.27	21.21	23.00	
100	0		21.26	21.32	21.31	23.00	
64QAM	1		0	21.35	21.45	21.47	23.00
	1		50	21.53	21.63	21.68	23.00
	1		99	21.15	21.29	21.39	23.00
	50		0	20.25	20.40	20.34	22.00
	50		25	20.34	20.37	20.37	22.00
	50		50	20.27	20.23	20.20	22.00
	100		0	20.27	20.29	20.30	22.00

LTE Band66							
DSI1				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				131979/1710.7	132322/1745	132665/1779.3	
1.4MHz	QPSK	1	0	23.22	23.25	23.24	24.50
		1	2	23.38	23.40	23.38	24.50





		1	5	23.04	23.11	23.15	24.50		
		3	0	23.24	23.38	23.34	24.50		
		3	2	23.29	23.36	23.38	24.50		
		3	3	23.29	23.22	23.21	24.50		
		6	0	22.28	22.38	22.38	23.50		
		1	0	22.64	22.62	22.62	23.50		
		1	2	22.79	22.72	22.73	23.50		
	16QAM	1	5	22.52	22.47	22.35	23.50		
		3	0	22.25	22.34	22.35	23.50		
		3	2	22.37	22.36	22.39	23.50		
		3	3	22.32	22.23	22.25	23.50		
		6	0	21.34	21.38	21.38	22.50		
		1	0	21.49	21.43	21.57	22.50		
		1	2	21.66	21.56	21.63	22.50		
	64QAM	1	5	21.30	21.32	21.40	22.50		
		3	0	21.22	21.33	21.30	22.50		
		3	2	21.31	21.35	21.38	22.50		
		3	3	21.23	21.23	21.15	22.50		
		6	0	20.29	20.38	20.35	21.50		
						Channel/Frequency(MHz)			Tune-up
		Bandwidth	Modulation	RB allocation	offset	131987/1711.5	132322/1745	132657/1778.5	
3MHz	QPSK	1	0	23.24	23.29	23.27	24.50		
		1	7	23.36	23.43	23.42	24.50		
		1	14	23.07	23.16	23.19	24.50		
		8	0	22.34	22.50	22.47	23.50		
		8	4	22.41	22.46	22.50	23.50		
		8	7	22.39	22.33	22.31	23.50		
		15	0	22.28	22.42	22.41	23.50		
	16QAM	1	0	22.64	22.64	22.65	23.50		
		1	7	22.79	22.72	22.77	23.50		
		1	14	22.54	22.51	22.38	23.50		
		8	0	21.36	21.47	21.47	22.50		
		8	4	21.48	21.49	21.51	22.50		
		8	7	21.42	21.35	21.38	22.50		
		15	0	21.37	21.42	21.41	22.50		
	64QAM	1	0	21.52	21.45	21.60	22.50		
		1	7	21.69	21.56	21.65	22.50		
		1	14	21.32	21.31	21.43	22.50		
		8	0	20.33	20.46	20.42	21.50		
		8	4	20.42	20.48	20.50	21.50		
		8	7	20.33	20.35	20.28	21.50		
		15	0	20.32	20.42	20.38	21.50		



Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				131997/1712.5	132322/1745	132647/1777.5	
5MHz	QPSK	1	0	23.21	23.27	23.23	24.50
		1	13	23.34	23.39	23.39	24.50
		1	24	23.04	23.11	23.15	24.50
		12	0	22.31	22.45	22.43	23.50
		12	6	22.39	22.42	22.45	23.50
		12	13	22.37	22.31	22.27	23.50
		25	0	22.28	22.41	22.39	23.50
	16QAM	1	0	22.64	22.60	22.62	23.50
		1	13	22.79	22.70	22.74	23.50
		1	24	22.51	22.49	22.34	23.50
		12	0	21.34	21.43	21.44	22.50
		12	6	21.45	21.44	21.47	22.50
		12	13	21.39	21.30	21.34	22.50
		25	0	21.35	21.38	21.36	22.50
	64QAM	1	0	21.49	21.45	21.57	22.50
		1	13	21.66	21.58	21.62	22.50
		1	24	21.33	21.29	21.39	22.50
		12	0	20.31	20.42	20.43	21.50
		12	6	20.39	20.43	20.46	21.50
		12	13	20.30	20.30	20.24	21.50
		25	0	20.30	20.38	20.33	21.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
10MHz	QPSK	1	0	23.23	23.28	23.26	24.50
		1	25	23.37	23.44	23.43	24.50
		1	49	23.06	23.15	23.18	24.50
		25	0	22.34	22.50	22.47	23.50
		25	13	22.42	22.47	22.49	23.50
		25	25	22.39	22.35	22.32	23.50
		50	0	22.32	22.43	22.43	23.50
	16QAM	1	0	22.68	22.63	22.64	23.50
		1	25	22.83	22.74	22.77	23.50
		1	49	22.54	22.51	22.37	23.50
		25	0	21.37	21.48	21.48	22.50
		25	13	21.47	21.48	21.50	22.50
		25	25	21.42	21.35	21.38	22.50
		50	0	21.38	21.43	21.40	22.50
	64QAM	1	0	21.51	21.44	21.59	22.50
		1	25	21.69	21.58	21.65	22.50
		1	49	21.32	21.31	21.42	22.50



Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up	
				132047/1717.5	132322/1745	132597/1772.5		
		25	0	20.34	20.47	20.43	21.50	
		25	13	20.41	20.47	20.49	21.50	
		25	25	20.33	20.35	20.28	21.50	
		50	0	20.33	20.43	20.37	21.50	
15MHz	QPSK	1	0	23.22	23.24	23.24	24.50	
		1	38	23.35	23.43	23.40	24.50	
		1	74	23.03	23.10	23.14	24.50	
		36	0	22.32	22.46	22.44	23.50	
		36	18	22.39	22.42	22.45	23.50	
		36	39	22.36	22.32	22.28	23.50	
		75	0	22.30	22.39	22.38	23.50	
	16QAM	1	0	22.66	22.61	22.62	23.50	
		1	38	22.81	22.71	22.75	23.50	
		1	74	22.52	22.47	22.34	23.50	
		36	0	21.34	21.46	21.45	22.50	
		36	18	21.44	21.43	21.46	22.50	
		36	39	21.40	21.31	21.35	22.50	
		75	0	21.35	21.38	21.36	22.50	
	64QAM	1	0	21.46	21.42	21.57	22.50	
		1	38	21.67	21.55	21.63	22.50	
		1	74	21.33	21.30	21.43	22.50	
		36	0	20.33	20.49	20.44	21.50	
		36	18	20.39	20.44	20.48	21.50	
		36	39	20.31	20.31	20.25	21.50	
		75	0	20.30	20.38	20.33	21.50	
	Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
					132072/1720	132322/1745	132572/1770	
	20MHz	QPSK	1	0	23.19	23.20	23.21	24.50
			1	50	23.34	23.39	23.38	24.50
			1	99	23.01	23.09	23.11	24.50
			50	0	22.29	22.41	22.40	23.50
			50	25	22.37	22.38	22.42	23.50
50			50	22.33	22.27	22.24	23.50	
100			0	22.27	22.34	22.34	23.50	
16QAM		1	0	22.63	22.57	22.57	23.50	
		1	50	22.78	22.69	22.71	23.50	
		1	99	22.49	22.44	22.32	23.50	
		50	0	21.31	21.42	21.42	22.50	
		50	25	21.41	21.41	21.43	22.50	
		50	50	21.37	21.26	21.31	22.50	
		100	0	21.33	21.34	21.33	22.50	



	64QAM	1	0	21.44	21.38	21.52	22.50
		1	50	21.63	21.53	21.59	22.50
		1	99	21.27	21.24	21.37	22.50
		50	0	20.28	20.41	20.37	21.50
		50	25	20.35	20.40	20.42	21.50
		50	50	20.28	20.26	20.21	21.50
		100	0	20.28	20.34	20.30	21.50

LTE Band66							
DSI4				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				131979/1710.7	132322/1745	132665/1779.3	
1.4MHz	QPSK	1	0	19.78	19.88	19.78	21.00
		1	2	19.92	20.07	19.91	21.00
		1	5	19.69	19.69	19.69	21.00
		3	0	19.82	19.97	19.91	21.00
		3	2	19.86	19.93	19.93	21.00
		3	3	19.84	19.80	19.73	21.00
		6	0	19.75	19.93	19.83	21.00
	16QAM	1	0	20.35	20.40	20.48	21.00
		1	2	20.45	20.44	20.54	21.00
		1	5	20.22	20.24	20.25	21.00
		3	0	20.01	19.96	20.03	21.00
		3	2	19.98	19.95	20.02	21.00
		3	3	19.81	19.84	19.86	21.00
		6	0	19.88	19.92	19.96	21.00
	64QAM	1	0	20.27	20.26	20.32	21.00
		1	2	20.41	20.36	20.43	21.00
		1	5	20.16	20.11	20.12	21.00
		3	0	20.00	19.93	20.04	21.00
		3	2	19.99	19.95	20.02	21.00
		3	3	19.85	19.88	19.90	21.00
		6	0	19.88	19.92	19.96	21.00
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				131987/1711.5	132322/1745	132657/1778.5	
3MHz	QPSK	1	0	19.76	19.81	19.76	21.00
		1	7	19.92	20.07	19.90	21.00
		1	14	19.66	19.67	19.65	21.00
		8	0	19.80	19.93	19.88	21.00
		8	4	19.84	19.89	19.90	21.00
		8	7	19.80	19.76	19.70	21.00
		15	0	19.74	19.86	19.78	21.00
	16QAM	1	0	20.34	20.37	20.43	21.00



		1	7	20.44	20.43	20.51	21.00
		1	14	20.20	20.19	20.23	21.00
		8	0	19.98	19.95	20.01	21.00
		8	4	19.94	19.92	19.98	21.00
		8	7	19.79	19.80	19.83	21.00
		15	0	19.86	19.88	19.93	21.00
		15	7	19.86	19.88	19.93	21.00
	64QAM	1	0	20.22	20.19	20.27	21.00
		1	7	20.38	20.31	20.40	21.00
		1	14	20.10	20.06	20.10	21.00
		8	0	19.97	19.92	19.98	21.00
		8	4	19.95	19.92	19.98	21.00
		8	7	19.83	19.84	19.87	21.00
		15	0	19.86	19.88	19.93	21.00
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				131997/1712.5	132322/1745	132647/1777.5	
5MHz	QPSK	1	0	19.73	19.79	19.72	21.00
		1	13	19.90	20.03	19.87	21.00
		1	24	19.63	19.62	19.61	21.00
		12	0	19.77	19.88	19.84	21.00
		12	6	19.82	19.85	19.85	21.00
		12	13	19.78	19.74	19.66	21.00
		25	0	19.74	19.85	19.76	21.00
	16QAM	1	0	20.34	20.33	20.40	21.00
		1	13	20.44	20.41	20.48	21.00
		1	24	20.17	20.17	20.19	21.00
		12	0	19.96	19.91	19.98	21.00
		12	6	19.91	19.87	19.94	21.00
		12	13	19.76	19.75	19.79	21.00
		25	0	19.84	19.84	19.88	21.00
	64QAM	1	0	20.19	20.19	20.24	21.00
		1	13	20.35	20.33	20.37	21.00
		1	24	20.11	20.04	20.06	21.00
		12	0	19.95	19.88	19.99	21.00
		12	6	19.92	19.87	19.94	21.00
		12	13	19.80	19.79	19.83	21.00
		25	0	19.84	19.84	19.88	21.00
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				132022/1715	132322/1745	132622/1775	
10MHz	QPSK	1	0	19.75	19.80	19.75	21.00
		1	25	19.93	20.08	19.91	21.00
		1	49	19.65	19.66	19.64	21.00
		25	0	19.80	19.93	19.88	21.00
		25	13	19.85	19.90	19.89	21.00



		25	25	19.80	19.78	19.71	21.00	
		50	0	19.78	19.87	19.80	21.00	
	16QAM		1	0	20.38	20.36	20.42	21.00
			1	25	20.48	20.45	20.51	21.00
			1	49	20.20	20.19	20.22	21.00
			25	0	19.99	19.96	20.02	21.00
			25	13	19.93	19.91	19.97	21.00
			25	25	19.79	19.80	19.83	21.00
			50	0	19.87	19.89	19.92	21.00
			64QAM		1	0	20.21	20.18
	1	25			20.38	20.33	20.40	21.00
	1	49			20.10	20.06	20.09	21.00
	25	0			19.98	19.93	19.99	21.00
	25	13			19.94	19.91	19.97	21.00
	25	25			19.83	19.84	19.87	21.00
	50	0			19.87	19.89	19.92	21.00
Bandwidth	Modulation	RB allocation			offset	Channel/Frequency(MHz)		
			132047/1717.5	132322/1745		132597/1772.5		
15MHz	QPSK	1	0	19.74	19.76	19.73	21.00	
		1	38	19.91	20.07	19.88	21.00	
		1	74	19.62	19.61	19.60	21.00	
		36	0	19.78	19.89	19.85	21.00	
		36	18	19.82	19.85	19.85	21.00	
		36	39	19.77	19.75	19.67	21.00	
		75	0	19.76	19.83	19.75	21.00	
		16QAM		1	0	20.36	20.34	20.40
	1			38	20.46	20.42	20.49	21.00
	1			74	20.18	20.15	20.19	21.00
	36			0	19.96	19.94	19.99	21.00
	36			18	19.90	19.86	19.93	21.00
	36			39	19.77	19.76	19.80	21.00
	75			0	19.84	19.84	19.88	21.00
	64QAM				1	0	20.16	20.16
		1	38		20.36	20.30	20.38	21.00
		1	74		20.11	20.05	20.10	21.00
		36	0		19.97	19.95	20.00	21.00
		36	18		19.92	19.88	19.96	21.00
		36	39		19.81	19.80	19.84	21.00
		75	0		19.84	19.84	19.88	21.00
		Bandwidth	Modulation		RB allocation	offset	Channel/Frequency(MHz)	
	132072/1720			132322/1745			132572/1770	
	20MHz	QPSK	1	0	19.71	19.72	19.70	21.00
1			50	19.90	20.03	19.86	21.00	



		1	99	19.60	19.60	19.57	21.00
		50	0	19.75	19.84	19.81	21.00
		50	25	19.80	19.81	19.82	21.00
		50	50	19.74	19.70	19.63	21.00
		100	0	19.73	19.78	19.71	21.00
	16QAM	1	0	20.33	20.30	20.35	21.00
		1	50	20.43	20.40	20.45	21.00
		1	99	20.15	20.12	20.17	21.00
		50	0	19.93	19.90	19.96	21.00
		50	25	19.87	19.84	19.90	21.00
		50	50	19.74	19.71	19.76	21.00
		100	0	19.82	19.80	19.85	21.00
	64QAM	1	0	20.14	20.12	20.19	21.00
		1	50	20.32	20.28	20.34	21.00
		1	99	20.05	19.99	20.04	21.00
		50	0	19.92	19.87	19.93	21.00
		50	25	19.88	19.84	19.90	21.00
		50	50	19.78	19.75	19.80	21.00
		100	0	19.82	19.80	19.85	21.00





## Upper- Antenna

LTE Band2							
Full Power&DSI2				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				18607/1850.7	18900/1880	19193/1909.3	
1.4MHz	QPSK	1	0	23.17	23.24	23.19	25.00
		1	2	23.44	23.42	23.44	25.00
		1	5	23.09	23.07	23.25	25.00
		3	0	23.19	23.31	23.34	25.00
		3	2	23.26	23.35	23.40	25.00
		3	3	23.19	23.26	23.29	25.00
		6	0	22.19	22.38	22.42	24.00
	16QAM	1	0	22.48	22.54	22.57	24.00
		1	2	22.65	22.79	22.74	24.00
		1	5	22.37	22.40	22.58	24.00
		3	0	22.24	22.34	22.38	24.00
		3	2	22.36	22.39	22.44	24.00
		3	3	22.25	22.30	22.29	24.00
		6	0	21.29	21.39	21.45	23.00
	64QAM	1	0	21.54	21.52	21.41	23.00
		1	2	21.76	21.71	21.64	23.00
		1	5	21.41	21.43	21.40	23.00
		3	0	21.24	21.30	21.41	23.00
		3	2	21.36	21.38	21.42	23.00
		3	3	21.24	21.29	21.30	23.00
		6	0	20.30	20.38	20.44	22.00
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				18615/1851.5	18900/1880	19185/1908.5	
3MHz	QPSK	1	0	23.19	23.28	23.22	25.00
		1	7	23.42	23.45	23.48	25.00
		1	14	23.12	23.12	23.29	25.00
		8	0	22.29	22.43	22.47	24.00
		8	4	22.38	22.45	22.52	24.00
		8	7	22.29	22.37	22.39	24.00
		15	0	22.19	22.42	22.45	24.00
	16QAM	1	0	22.48	22.56	22.60	24.00
		1	7	22.65	22.79	22.78	24.00
		1	14	22.39	22.44	22.61	24.00
		8	0	21.35	21.47	21.50	23.00
		8	4	21.47	21.52	21.56	23.00
		8	7	21.35	21.42	21.42	23.00
		15	0	21.32	21.43	21.48	23.00
	64QAM	1	0	21.57	21.54	21.44	23.00



Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up	
				18625/1852.5	18900/1880	19175/1907.5		
		1	7	21.79	21.71	21.66	23.00	
		1	14	21.43	21.42	21.43	23.00	
		8	0	20.35	20.43	20.53	22.00	
		8	4	20.47	20.51	20.54	22.00	
		8	7	20.34	20.41	20.43	22.00	
		15	0	20.33	20.42	20.47	22.00	
5MHz	QPSK	1	0	23.16	23.26	23.18	25.00	
		1	13	23.40	23.41	23.45	25.00	
		1	24	23.09	23.07	23.25	25.00	
		12	0	22.26	22.38	22.43	24.00	
		12	6	22.36	22.41	22.47	24.00	
		12	13	22.27	22.35	22.35	24.00	
		25	0	22.19	22.41	22.43	24.00	
	16QAM	1	0	22.48	22.52	22.57	24.00	
		1	13	22.65	22.77	22.75	24.00	
		1	24	22.36	22.42	22.57	24.00	
		12	0	21.33	21.43	21.47	23.00	
		12	6	21.44	21.47	21.52	23.00	
		12	13	21.32	21.37	21.38	23.00	
		25	0	21.30	21.39	21.43	23.00	
	64QAM	1	0	21.54	21.54	21.41	23.00	
		1	13	21.76	21.73	21.63	23.00	
		1	24	21.44	21.40	21.39	23.00	
		12	0	20.33	20.39	20.54	22.00	
		12	6	20.44	20.46	20.50	22.00	
		12	13	20.31	20.36	20.39	22.00	
		25	0	20.31	20.38	20.42	22.00	
	Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
					18650/1855	18900/1880	19150/1905	
	10MHz	QPSK	1	0	23.18	23.27	23.21	25.00
1			25	23.43	23.46	23.49	25.00	
1			49	23.11	23.11	23.28	25.00	
25			0	22.29	22.43	22.47	24.00	
25			13	22.39	22.46	22.51	24.00	
25			25	22.29	22.39	22.40	24.00	
50			0	22.23	22.43	22.47	24.00	
16QAM		1	0	22.52	22.55	22.59	24.00	
		1	25	22.69	22.81	22.78	24.00	
		1	49	22.39	22.44	22.60	24.00	
		25	0	21.36	21.48	21.51	23.00	
		25	13	21.46	21.51	21.55	23.00	



Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up	
				18675/1857.5	18900/1880	19125/1902.5		
		25	25	21.35	21.42	21.42	23.00	
		50	0	21.33	21.44	21.47	23.00	
	64QAM	1	0	21.56	21.53	21.43	23.00	
		1	25	21.79	21.73	21.66	23.00	
		1	49	21.43	21.42	21.42	23.00	
		25	0	20.36	20.44	20.54	22.00	
		25	13	20.46	20.50	20.53	22.00	
		25	25	20.34	20.41	20.43	22.00	
		50	0	20.34	20.43	20.46	22.00	
15MHz	QPSK	1	0	23.17	23.23	23.19	25.00	
		1	38	23.41	23.45	23.46	25.00	
		1	74	23.08	23.06	23.24	25.00	
		36	0	22.27	22.39	22.44	24.00	
		36	18	22.36	22.41	22.47	24.00	
		36	39	22.26	22.36	22.36	24.00	
		75	0	22.21	22.39	22.42	24.00	
	16QAM	1	0	22.50	22.53	22.57	24.00	
		1	38	22.67	22.78	22.76	24.00	
		1	74	22.37	22.40	22.57	24.00	
		36	0	21.33	21.46	21.48	23.00	
		36	18	21.43	21.46	21.51	23.00	
		36	39	21.33	21.38	21.39	23.00	
		75	0	21.30	21.39	21.43	23.00	
	64QAM	1	0	21.51	21.51	21.41	23.00	
		1	38	21.77	21.70	21.64	23.00	
		1	74	21.44	21.41	21.43	23.00	
		36	0	20.35	20.46	20.55	22.00	
		36	18	20.44	20.47	20.52	22.00	
		36	39	20.32	20.37	20.40	22.00	
		75	0	20.31	20.38	20.42	22.00	
	Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
					18700/1860	18900/1880	19100/1900	
	20MHz	QPSK	1	0	23.14	23.19	23.16	25.00
1			50	23.40	23.41	23.44	25.00	
1			99	23.06	23.05	23.21	25.00	
50			0	22.24	22.34	22.40	24.00	
50			25	22.34	22.37	22.44	24.00	
50			50	22.23	22.31	22.32	24.00	
100			0	22.18	22.34	22.38	24.00	
16QAM		1	0	22.47	22.49	22.52	24.00	
		1	50	22.64	22.76	22.72	24.00	



		1	99	22.34	22.37	22.55	24.00
		50	0	21.30	21.42	21.45	23.00
		50	25	21.40	21.44	21.48	23.00
		50	50	21.30	21.33	21.35	23.00
		100	0	21.28	21.35	21.40	23.00
	64QAM	1	0	21.49	21.47	21.36	23.00
		1	50	21.73	21.68	21.60	23.00
		1	99	21.38	21.35	21.37	23.00
		50	0	20.30	20.38	20.48	22.00
		50	25	20.40	20.43	20.46	22.00
		50	50	20.29	20.32	20.36	22.00
		100	0	20.29	20.34	20.39	22.00

LTE Band2							
DSI1&DSI4				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				18607/1850.7	18900/1880	19193/1909.3	
1.4MHz	QPSK	1	0	19.22	19.36	19.26	20.50
		1	2	19.39	19.52	19.53	20.50
		1	5	19.16	19.22	19.36	20.50
		3	0	19.29	19.49	19.50	20.50
		3	2	19.40	19.50	19.52	20.50
		3	3	19.34	19.35	19.41	20.50
		6	0	19.24	19.45	19.44	20.50
	16QAM	1	0	19.48	19.65	19.65	20.50
		1	2	19.76	19.79	19.92	20.50
		1	5	19.40	19.54	19.66	20.50
		3	0	19.37	19.40	19.50	20.50
		3	2	19.48	19.50	19.53	20.50
		3	3	19.34	19.40	19.42	20.50
		6	0	19.31	19.42	19.47	20.50
	64QAM	1	0	19.54	19.55	19.40	20.50
		1	2	19.68	19.67	19.65	20.50
		1	5	19.42	19.41	19.42	20.50
		3	0	19.35	19.40	19.52	20.50
		3	2	19.47	19.48	19.55	20.50
		3	3	19.34	19.38	19.44	20.50
		6	0	19.31	19.44	19.48	20.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
3MHz	QPSK			18615/1851.5	18900/1880	19185/1908.5	
		1	0	19.19	19.34	19.22	20.50
		1	7	19.37	19.48	19.50	20.50
		1	14	19.13	19.17	19.32	20.50



		8	0	19.26	19.44	19.46	20.50	
		8	4	19.38	19.46	19.47	20.50	
		8	7	19.32	19.33	19.37	20.50	
		15	0	19.24	19.44	19.42	20.50	
	16QAM	1	0	19.48	19.61	19.62	20.50	
		1	7	19.76	19.77	19.89	20.50	
		1	14	19.37	19.52	19.62	20.50	
		8	0	19.35	19.36	19.47	20.50	
		8	4	19.45	19.45	19.49	20.50	
		8	7	19.31	19.35	19.38	20.50	
		15	0	19.29	19.38	19.42	20.50	
		64QAM	1	0	19.51	19.55	19.37	20.50
	1		7	19.65	19.69	19.62	20.50	
	1		14	19.43	19.39	19.38	20.50	
	8		0	19.33	19.36	19.53	20.50	
	8		4	19.44	19.43	19.51	20.50	
	8		7	19.31	19.33	19.40	20.50	
	15		0	19.29	19.40	19.43	20.50	
	Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
					18625/1852.5	18900/1880	19175/1907.5	
	5MHz	QPSK	1	0	19.17	19.27	19.20	20.50
1			13	19.37	19.48	19.49	20.50	
1			24	19.10	19.15	19.28	20.50	
12			0	19.24	19.40	19.43	20.50	
12			6	19.36	19.42	19.44	20.50	
12			13	19.28	19.29	19.34	20.50	
25			0	19.23	19.37	19.37	20.50	
16QAM		1	0	19.47	19.58	19.57	20.50	
		1	13	19.75	19.76	19.86	20.50	
		1	24	19.35	19.47	19.60	20.50	
		12	0	19.32	19.35	19.45	20.50	
		12	6	19.41	19.42	19.45	20.50	
		12	13	19.29	19.31	19.35	20.50	
		25	0	19.27	19.34	19.39	20.50	
64QAM		1	0	19.46	19.48	19.32	20.50	
		1	13	19.62	19.64	19.59	20.50	
		1	24	19.37	19.34	19.36	20.50	
		12	0	19.30	19.35	19.47	20.50	
		12	6	19.40	19.40	19.47	20.50	
		12	13	19.29	19.29	19.37	20.50	
		25	0	19.27	19.36	19.40	20.50	



Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				18650/1855	18900/1880	19150/1905	
10MHz	QPSK	1	0	19.19	19.28	19.23	20.50
		1	25	19.40	19.53	19.53	20.50
		1	49	19.12	19.19	19.31	20.50
		25	0	19.27	19.45	19.47	20.50
		25	13	19.39	19.47	19.48	20.50
		25	25	19.30	19.33	19.39	20.50
		50	0	19.27	19.39	19.41	20.50
	16QAM	1	0	19.51	19.61	19.59	20.50
		1	25	19.79	19.80	19.89	20.50
		1	49	19.38	19.49	19.63	20.50
		25	0	19.35	19.40	19.49	20.50
		25	13	19.43	19.46	19.48	20.50
		25	25	19.32	19.36	19.39	20.50
		50	0	19.30	19.39	19.43	20.50
	64QAM	1	0	19.48	19.47	19.34	20.50
		1	25	19.65	19.64	19.62	20.50
		1	49	19.36	19.36	19.39	20.50
		25	0	19.33	19.40	19.47	20.50
		25	13	19.42	19.44	19.50	20.50
		25	25	19.32	19.34	19.41	20.50
		50	0	19.30	19.41	19.44	20.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
15MHz	QPSK	1	0	19.18	19.24	19.21	20.50
		1	38	19.38	19.52	19.50	20.50
		1	74	19.09	19.14	19.27	20.50
		36	0	19.25	19.41	19.44	20.50
		36	18	19.36	19.42	19.44	20.50
		36	39	19.27	19.30	19.35	20.50
		75	0	19.25	19.35	19.36	20.50
	16QAM	1	0	19.49	19.59	19.57	20.50
		1	38	19.77	19.77	19.87	20.50
		1	74	19.36	19.45	19.60	20.50
		36	0	19.32	19.38	19.46	20.50
		36	18	19.40	19.41	19.44	20.50
		36	39	19.30	19.32	19.36	20.50
		75	0	19.27	19.34	19.39	20.50
	64QAM	1	0	19.43	19.45	19.32	20.50
		1	38	19.63	19.61	19.60	20.50
		1	74	19.37	19.35	19.40	20.50



Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				18700/1860	18900/1880	19100/1900	
20MHz	QPSK	36	0	19.32	19.42	19.48	20.50
		36	18	19.40	19.41	19.49	20.50
		36	39	19.30	19.30	19.38	20.50
		75	0	19.27	19.36	19.40	20.50
	16QAM	1	0	19.15	19.20	19.18	20.50
		1	50	19.37	19.48	19.48	20.50
		1	99	19.07	19.13	19.24	20.50
		50	0	19.22	19.36	19.40	20.50
		50	25	19.34	19.38	19.41	20.50
		50	50	19.24	19.25	19.31	20.50
		100	0	19.22	19.30	19.32	20.50
	64QAM	1	0	19.46	19.55	19.52	20.50
		1	50	19.74	19.75	19.83	20.50
		1	99	19.33	19.42	19.58	20.50
		50	0	19.29	19.34	19.43	20.50
		50	25	19.37	19.39	19.41	20.50
		50	50	19.27	19.27	19.32	20.50
		100	0	19.25	19.30	19.36	20.50
	64QAM	1	0	19.41	19.41	19.27	20.50
		1	50	19.59	19.59	19.56	20.50
		1	99	19.31	19.29	19.34	20.50
		50	0	19.27	19.34	19.41	20.50
		50	25	19.36	19.37	19.43	20.50
		50	50	19.27	19.25	19.34	20.50
		100	0	19.25	19.32	19.37	20.50

LTE Band4							
Full Power&DSI2				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				19957/1710.7	20175/1732.5	20393/1754.3	
1.4MHz	QPSK	1	0	23.37	23.38	23.36	25.00
		1	2	23.60	23.53	23.49	25.00
		1	5	23.23	23.21	23.22	25.00
		3	0	23.38	23.52	23.51	25.00
		3	2	23.48	23.51	23.51	25.00
		3	3	23.45	23.36	23.34	25.00
		6	0	22.47	22.52	22.51	24.00
	16QAM	1	0	22.76	22.83	22.80	24.00
		1	2	22.92	22.90	22.89	24.00
		1	5	22.59	22.61	22.51	24.00
		3	0	22.39	22.47	22.49	24.00



		3	2	22.53	22.51	22.50	24.00
		3	3	22.45	22.35	22.34	24.00
		6	0	21.50	21.51	21.54	23.00
	64QAM	1	0	21.55	21.65	21.70	23.00
		1	2	21.73	21.77	21.90	23.00
		1	5	21.39	21.53	21.48	23.00
		3	0	21.40	21.44	21.47	23.00
		3	2	21.53	21.49	21.47	23.00
		3	3	21.41	21.34	21.34	23.00
	6	0	20.50	20.50	20.51	22.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				19965/1711.5	20175/1732.5	20385/1753.5	
3MHz	QPSK	1	0	23.39	23.42	23.39	24.50
		1	7	23.58	23.56	23.53	24.50
		1	14	23.26	23.26	23.26	24.50
		8	0	22.48	22.64	22.64	23.50
		8	4	22.60	22.61	22.63	23.50
		8	7	22.55	22.47	22.44	23.50
		15	0	22.47	22.56	22.54	23.50
	16QAM	1	0	22.76	22.85	22.83	23.50
		1	7	22.92	22.90	22.93	23.50
		1	14	22.61	22.65	22.54	23.50
		8	0	21.50	21.60	21.61	22.50
		8	4	21.64	21.64	21.62	22.50
		8	7	21.55	21.47	21.47	22.50
		15	0	21.53	21.55	21.57	22.50
	64QAM	1	0	21.58	21.67	21.73	22.50
		1	7	21.76	21.77	21.92	22.50
		1	14	21.41	21.52	21.51	22.50
		8	0	20.51	20.57	20.59	21.50
		8	4	20.64	20.62	20.59	21.50
		8	7	20.51	20.46	20.47	21.50
		15	0	20.53	20.54	20.54	21.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				19975/1712.5	20175/1732.5	20375/1752.5	
5MHz	QPSK	1	0	23.36	23.40	23.35	24.50
		1	13	23.56	23.52	23.50	24.50
		1	24	23.23	23.21	23.22	24.50
		12	0	22.45	22.59	22.60	23.50
		12	6	22.58	22.57	22.58	23.50
		12	13	22.53	22.45	22.40	23.50
		25	0	22.47	22.55	22.52	23.50
	16QAM	1	0	22.76	22.81	22.80	23.50





		1	13	22.92	22.88	22.90	23.50
		1	24	22.58	22.63	22.50	23.50
		12	0	21.48	21.56	21.58	22.50
		12	6	21.61	21.59	21.58	22.50
		12	13	21.52	21.42	21.43	22.50
		25	0	21.51	21.51	21.52	22.50
		25	13	21.51	21.51	21.52	22.50
	64QAM	1	0	21.55	21.67	21.70	22.50
		1	13	21.73	21.79	21.89	22.50
		1	24	21.42	21.50	21.47	22.50
		12	0	20.49	20.53	20.60	21.50
		12	6	20.61	20.57	20.55	21.50
		12	13	20.48	20.41	20.43	21.50
		25	0	20.51	20.50	20.49	21.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				20000/1715	20175/1732.5	20350/1750	
10MHz	QPSK	1	0	23.38	23.41	23.38	24.50
		1	25	23.59	23.57	23.54	24.50
		1	49	23.25	23.25	23.25	24.50
		25	0	22.48	22.64	22.64	23.50
		25	13	22.61	22.62	22.62	23.50
		25	25	22.55	22.49	22.45	23.50
		50	0	22.51	22.57	22.56	23.50
	16QAM	1	0	22.80	22.84	22.82	23.50
		1	25	22.96	22.92	22.93	23.50
		1	49	22.61	22.65	22.53	23.50
		25	0	21.51	21.61	21.62	22.50
		25	13	21.63	21.63	21.61	22.50
		25	25	21.55	21.47	21.47	22.50
		50	0	21.54	21.56	21.56	22.50
	64QAM	1	0	21.57	21.66	21.72	22.50
		1	25	21.76	21.79	21.92	22.50
		1	49	21.41	21.52	21.50	22.50
		25	0	20.52	20.58	20.60	21.50
		25	13	20.63	20.61	20.58	21.50
		25	25	20.51	20.46	20.47	21.50
		50	0	20.54	20.55	20.53	21.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				20025/1717.5	20175/1732.5	20325/1747.5	
15MHz	QPSK	1	0	23.37	23.37	23.36	24.50
		1	38	23.57	23.56	23.51	24.50
		1	74	23.22	23.20	23.21	24.50
		36	0	22.46	22.60	22.61	23.50
		36	18	22.58	22.57	22.58	23.50



Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up	
				20050/1720	20175/1732.5	20300/1745		
20MHz	16QAM	36	39	22.52	22.46	22.41	23.50	
		75	0	22.49	22.53	22.51	23.50	
		1	0	22.78	22.82	22.80	23.50	
		1	38	22.94	22.89	22.91	23.50	
		1	74	22.59	22.61	22.50	23.50	
		36	0	21.48	21.59	21.59	22.50	
		36	18	21.60	21.58	21.57	22.50	
		36	39	21.53	21.43	21.44	22.50	
		75	0	21.51	21.51	21.52	22.50	
		64QAM	1	0	21.52	21.64	21.70	22.50
			1	38	21.74	21.76	21.90	22.50
			1	74	21.42	21.51	21.51	22.50
			36	0	20.51	20.60	20.61	21.50
			36	18	20.61	20.58	20.57	21.50
	36		39	20.49	20.42	20.44	21.50	
	75		0	20.51	20.50	20.49	21.50	
	QPSK		1	0	23.34	23.33	23.33	24.50
			1	50	23.56	23.52	23.49	24.50
			1	99	23.20	23.19	23.18	24.50
			50	0	22.43	22.55	22.57	23.50
			50	25	22.56	22.53	22.55	23.50
			50	50	22.49	22.41	22.37	23.50
			100	0	22.46	22.48	22.47	23.50
		16QAM	1	0	22.75	22.78	22.75	23.50
			1	50	22.91	22.87	22.87	23.50
			1	99	22.56	22.58	22.48	23.50
			50	0	21.45	21.55	21.56	22.50
			50	25	21.57	21.56	21.54	22.50
50			50	21.50	21.38	21.40	22.50	
100			0	21.49	21.47	21.49	22.50	
64QAM	1	0	21.50	21.60	21.65	22.50		
	1	50	21.70	21.74	21.86	22.50		
	1	99	21.36	21.45	21.45	22.50		
	50	0	20.46	20.52	20.54	21.50		
	50	25	20.57	20.54	20.51	21.50		
	50	50	20.46	20.37	20.40	21.50		
	100	0	20.49	20.46	20.46	21.50		



LTE Band4							
DSI1				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				19957/1710.7	20175/1732.5	20393/1754.3	
1.4MHz	QPSK	1	0	17.40	17.55	17.41	18.50
		1	2	17.58	17.59	17.57	18.50
		1	5	17.30	17.28	17.29	18.50
		3	0	17.45	17.62	17.61	18.50
		3	2	17.50	17.59	17.53	18.50
		3	3	17.50	17.43	17.42	18.50
		6	0	17.41	17.54	17.51	18.50
	16QAM	1	0	17.74	17.77	17.69	18.50
		1	2	17.82	17.87	17.83	18.50
		1	5	17.59	17.61	17.55	18.50
		3	0	17.45	17.54	17.58	18.50
		3	2	17.60	17.55	17.58	18.50
		3	3	17.47	17.45	17.42	18.50
		6	0	17.46	17.52	17.53	18.50
	64QAM	1	0	17.62	17.74	17.71	18.50
		1	2	17.76	17.82	17.83	18.50
		1	5	17.42	17.52	17.34	18.50
		3	0	17.47	17.55	17.59	18.50
		3	2	17.59	17.57	17.58	18.50
		3	3	17.46	17.46	17.41	18.50
		6	0	17.46	17.52	17.55	18.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
3MHz	QPSK	1	0	17.38	17.50	17.38	18.50
		1	7	17.57	17.59	17.55	18.50
		1	14	17.26	17.22	17.24	18.50
		8	0	17.43	17.58	17.58	18.50
		8	4	17.48	17.55	17.48	18.50
		8	7	17.47	17.42	17.39	18.50
		15	0	17.43	17.51	17.48	18.50
	16QAM	1	0	17.76	17.74	17.66	18.50
		1	7	17.84	17.86	17.81	18.50
		1	14	17.57	17.57	17.51	18.50
		8	0	17.43	17.53	17.56	18.50
		8	4	17.56	17.49	17.53	18.50
		8	7	17.45	17.41	17.39	18.50
		15	0	17.44	17.48	17.48	18.50
	64QAM	1	0	17.56	17.71	17.68	18.50



Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up	
				19975/1712.5	20175/1732.5	20375/1752.5		
		1	7	17.74	17.81	17.81	18.50	
		1	14	17.43	17.51	17.34	18.50	
		8	0	17.47	17.58	17.61	18.50	
		8	4	17.56	17.53	17.56	18.50	
		8	7	17.44	17.42	17.38	18.50	
		15	0	17.44	17.48	17.50	18.50	
5MHz	QPSK	1	0	17.35	17.46	17.35	18.50	
		1	13	17.56	17.55	17.53	18.50	
		1	24	17.24	17.21	17.21	18.50	
		12	0	17.40	17.53	17.54	18.50	
		12	6	17.46	17.51	17.45	18.50	
		12	13	17.44	17.37	17.35	18.50	
		25	0	17.40	17.46	17.44	18.50	
	16QAM	1	0	17.73	17.70	17.61	18.50	
		1	13	17.81	17.84	17.77	18.50	
		1	24	17.54	17.54	17.49	18.50	
		12	0	17.40	17.49	17.53	18.50	
		12	6	17.53	17.47	17.50	18.50	
		12	13	17.42	17.36	17.35	18.50	
		25	0	17.42	17.44	17.45	18.50	
	64QAM	1	0	17.54	17.67	17.63	18.50	
		1	13	17.70	17.79	17.77	18.50	
		1	24	17.37	17.45	17.28	18.50	
		12	0	17.42	17.50	17.54	18.50	
		12	6	17.52	17.49	17.50	18.50	
		12	13	17.41	17.37	17.34	18.50	
		25	0	17.42	17.44	17.47	18.50	
	Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
					20000/1715	20175/1732.5	20350/1750	
	10MHz	QPSK	1	0	17.37	17.47	17.38	18.50
1			25	17.59	17.60	17.57	18.50	
1			49	17.26	17.25	17.24	18.50	
25			0	17.43	17.58	17.58	18.50	
25			13	17.49	17.56	17.49	18.50	
25			25	17.46	17.41	17.40	18.50	
50			0	17.44	17.48	17.48	18.50	
16QAM		1	0	17.77	17.73	17.63	18.50	
		1	25	17.85	17.88	17.80	18.50	
		1	49	17.57	17.56	17.52	18.50	
		25	0	17.43	17.54	17.57	18.50	
		25	13	17.55	17.51	17.53	18.50	



Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up	
				20025/1717.5	20175/1732.5	20325/1747.5		
	64QAM	25	25	17.45	17.41	17.39	18.50	
		50	0	17.45	17.49	17.49	18.50	
		1	0	17.56	17.66	17.65	18.50	
		1	25	17.73	17.79	17.80	18.50	
		1	49	17.36	17.47	17.31	18.50	
		25	0	17.45	17.55	17.54	18.50	
		25	13	17.54	17.53	17.53	18.50	
		25	25	17.44	17.42	17.38	18.50	
		50	0	17.45	17.49	17.51	18.50	
15MHz	QPSK	1	0	17.36	17.43	17.36	18.50	
		1	38	17.57	17.59	17.54	18.50	
		1	74	17.23	17.20	17.20	18.50	
		36	0	17.41	17.54	17.55	18.50	
		36	18	17.46	17.51	17.45	18.50	
		36	39	17.43	17.38	17.36	18.50	
		75	0	17.42	17.44	17.43	18.50	
	16QAM	1	0	17.75	17.71	17.61	18.50	
		1	38	17.83	17.85	17.78	18.50	
		1	74	17.55	17.52	17.49	18.50	
		36	0	17.40	17.52	17.54	18.50	
		36	18	17.52	17.46	17.49	18.50	
		36	39	17.43	17.37	17.36	18.50	
		75	0	17.42	17.44	17.45	18.50	
	64QAM	1	0	17.51	17.64	17.63	18.50	
		1	38	17.71	17.76	17.78	18.50	
		1	74	17.37	17.46	17.32	18.50	
		36	0	17.44	17.57	17.55	18.50	
		36	18	17.52	17.50	17.52	18.50	
		36	39	17.42	17.38	17.35	18.50	
		75	0	17.42	17.44	17.47	18.50	
	Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
					20050/1720	20175/1732.5	20300/1745	
	20MHz	QPSK	1	0	17.33	17.39	17.33	18.50
1			50	17.56	17.55	17.52	18.50	
1			99	17.21	17.19	17.17	18.50	
50			0	17.38	17.49	17.51	18.50	
50			25	17.44	17.47	17.42	18.50	
50			50	17.40	17.33	17.32	18.50	
100			0	17.39	17.39	17.39	18.50	
16QAM		1	0	17.72	17.67	17.56	18.50	
		1	50	17.80	17.83	17.74	18.50	



		1	99	17.52	17.49	17.47	18.50
		50	0	17.37	17.48	17.51	18.50
		50	25	17.49	17.44	17.46	18.50
		50	50	17.40	17.32	17.32	18.50
		100	0	17.40	17.40	17.42	18.50
	64QAM	1	0	17.49	17.60	17.58	18.50
		1	50	17.67	17.74	17.74	18.50
		1	99	17.31	17.40	17.26	18.50
		50	0	17.39	17.49	17.48	18.50
		50	25	17.48	17.46	17.46	18.50
		50	50	17.39	17.33	17.31	18.50
		100	0	17.40	17.40	17.44	18.50

LTE Band4							
DSI4				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				19957/1710.7	20175/1732.5	20393/1754.3	
1.4MHz	QPSK	1	0	19.45	19.58	19.45	20.50
		1	2	19.63	19.60	19.61	20.50
		1	5	19.33	19.30	19.33	20.50
		3	0	19.46	19.65	19.64	20.50
		3	2	19.55	19.61	19.60	20.50
		3	3	19.54	19.46	19.43	20.50
		6	0	19.50	19.55	19.58	20.50
	16QAM	1	0	19.72	19.83	19.83	20.50
		1	2	19.89	19.89	19.98	20.50
		1	5	19.63	19.63	19.62	20.50
		3	0	19.50	19.60	19.64	20.50
		3	2	19.67	19.62	19.63	20.50
		3	3	19.52	19.53	19.49	20.50
		6	0	19.51	19.59	19.56	20.50
	64QAM	1	0	19.76	19.84	19.78	20.50
		1	2	19.92	19.86	19.87	20.50
		1	5	19.51	19.63	19.48	20.50
		3	0	19.50	19.59	19.68	20.50
		3	2	19.66	19.60	19.61	20.50
		3	3	19.53	19.51	19.50	20.50
		6	0	19.51	19.57	19.60	20.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				19965/1711.5	20175/1732.5	20385/1753.5	
3MHz	QPSK	1	0	19.43	19.53	19.42	20.50
		1	7	19.62	19.60	19.59	20.50
		1	14	19.29	19.24	19.28	20.50



		8	0	19.44	19.61	19.61	20.50	
		8	4	19.53	19.57	19.55	20.50	
		8	7	19.51	19.45	19.40	20.50	
		15	0	19.52	19.52	19.55	20.50	
	16QAM	1	0	19.74	19.80	19.80	20.50	
		1	7	19.91	19.88	19.96	20.50	
		1	14	19.61	19.59	19.58	20.50	
		8	0	19.48	19.59	19.62	20.50	
		8	4	19.63	19.56	19.58	20.50	
		8	7	19.50	19.49	19.46	20.50	
		15	0	19.49	19.55	19.51	20.50	
		64QAM	1	0	19.70	19.81	19.75	20.50
	1		7	19.90	19.85	19.85	20.50	
	1		14	19.52	19.62	19.48	20.50	
	8		0	19.50	19.62	19.70	20.50	
	8		4	19.63	19.56	19.59	20.50	
	8		7	19.51	19.47	19.47	20.50	
	15		0	19.49	19.53	19.55	20.50	
	Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
					19975/1712.5	20175/1732.5	20375/1752.5	
	5MHz	QPSK	1	0	19.40	19.49	19.39	20.50
1			13	19.61	19.56	19.57	20.50	
1			24	19.27	19.23	19.25	20.50	
12			0	19.41	19.56	19.57	20.50	
12			6	19.51	19.53	19.52	20.50	
12			13	19.48	19.40	19.36	20.50	
25			0	19.49	19.47	19.51	20.50	
16QAM		1	0	19.71	19.76	19.75	20.50	
		1	13	19.88	19.86	19.92	20.50	
		1	24	19.58	19.56	19.56	20.50	
		12	0	19.45	19.55	19.59	20.50	
		12	6	19.60	19.54	19.55	20.50	
		12	13	19.47	19.44	19.42	20.50	
		25	0	19.47	19.51	19.48	20.50	
64QAM		1	0	19.68	19.77	19.70	20.50	
		1	13	19.86	19.83	19.81	20.50	
		1	24	19.46	19.56	19.42	20.50	
		12	0	19.45	19.54	19.63	20.50	
		12	6	19.59	19.52	19.53	20.50	
		12	13	19.48	19.42	19.43	20.50	
		25	0	19.47	19.49	19.52	20.50	



Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				20000/1715	20175/1732.5	20350/1750	
10MHz	QPSK	1	0	19.42	19.50	19.42	20.50
		1	25	19.64	19.61	19.61	20.50
		1	49	19.29	19.27	19.28	20.50
		25	0	19.44	19.61	19.61	20.50
		25	13	19.54	19.58	19.56	20.50
		25	25	19.50	19.44	19.41	20.50
		50	0	19.53	19.49	19.55	20.50
	16QAM	1	0	19.75	19.79	19.77	20.50
		1	25	19.92	19.90	19.95	20.50
		1	49	19.61	19.58	19.59	20.50
		25	0	19.48	19.60	19.63	20.50
		25	13	19.62	19.58	19.58	20.50
		25	25	19.50	19.49	19.46	20.50
		50	0	19.50	19.56	19.52	20.50
	64QAM	1	0	19.70	19.76	19.72	20.50
		1	25	19.89	19.83	19.84	20.50
		1	49	19.45	19.58	19.45	20.50
		25	0	19.48	19.59	19.63	20.50
		25	13	19.61	19.56	19.56	20.50
		25	25	19.51	19.47	19.47	20.50
		50	0	19.50	19.54	19.56	20.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
15MHz	QPSK	1	0	19.41	19.46	19.40	20.50
		1	38	19.62	19.60	19.58	20.50
		1	74	19.26	19.22	19.24	20.50
		36	0	19.42	19.57	19.58	20.50
		36	18	19.51	19.53	19.52	20.50
		36	39	19.47	19.41	19.37	20.50
		75	0	19.51	19.45	19.50	20.50
	16QAM	1	0	19.73	19.77	19.75	20.50
		1	38	19.90	19.87	19.93	20.50
		1	74	19.59	19.54	19.56	20.50
		36	0	19.45	19.58	19.60	20.50
		36	18	19.59	19.53	19.54	20.50
		36	39	19.48	19.45	19.43	20.50
		75	0	19.47	19.51	19.48	20.50
	64QAM	1	0	19.65	19.74	19.70	20.50
		1	38	19.87	19.80	19.82	20.50
		1	74	19.46	19.57	19.46	20.50





Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				20050/1720	20175/1732.5	20300/1745	
		36	0	19.47	19.61	19.64	20.50
		36	18	19.59	19.53	19.55	20.50
		36	39	19.49	19.43	19.44	20.50
		75	0	19.47	19.49	19.52	20.50
20MHz	QPSK	1	0	19.38	19.42	19.37	20.50
		1	50	19.61	19.56	19.56	20.50
		1	99	19.24	19.21	19.21	20.50
		50	0	19.39	19.52	19.54	20.50
		50	25	19.49	19.49	19.49	20.50
		50	50	19.44	19.36	19.33	20.50
		100	0	19.48	19.40	19.46	20.50
	16QAM	1	0	19.70	19.73	19.70	20.50
		1	50	19.87	19.85	19.89	20.50
		1	99	19.56	19.51	19.54	20.50
		50	0	19.42	19.54	19.57	20.50
		50	25	19.56	19.51	19.51	20.50
		50	50	19.45	19.40	19.39	20.50
		100	0	19.45	19.47	19.45	20.50
	64QAM	1	0	19.63	19.70	19.65	20.50
		1	50	19.83	19.78	19.78	20.50
		1	99	19.40	19.51	19.40	20.50
		50	0	19.42	19.53	19.57	20.50
		50	25	19.55	19.49	19.49	20.50
		50	50	19.46	19.38	19.40	20.50
		100	0	19.45	19.45	19.49	20.50

LTE Band5							
Full Power&DSI2				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				20407/824.7	20525/836.5	20643/848.3	
1.4MHz	QPSK	1	0	23.38	23.44	23.40	25.00
		1	2	23.57	23.56	23.48	25.00
		1	5	23.47	23.41	23.43	25.00
		3	0	23.53	23.53	23.53	25.00
		3	2	23.49	23.52	23.49	25.00
		3	3	23.46	23.48	23.41	25.00
		6	0	22.59	22.59	22.55	24.00
	16QAM	1	0	22.69	22.77	22.77	24.00
		1	2	22.88	22.87	22.84	24.00
		1	5	22.79	22.76	22.71	24.00
		3	0	22.53	22.47	22.48	24.00



Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up	
				20415/825.5	20525/836.5	20635/847.5		
	64QAM	3	2	22.47	22.49	22.50	24.00	
		3	3	22.43	22.48	22.34	24.00	
		6	0	21.58	21.56	21.55	23.00	
		1	0	21.63	21.61	21.57	23.00	
		1	2	21.78	21.71	21.65	23.00	
		1	5	21.61	21.67	21.56	23.00	
		3	0	21.50	21.46	21.47	23.00	
		3	2	21.46	21.46	21.49	23.00	
		3	3	21.42	21.47	21.38	23.00	
		6	0	20.54	20.58	20.54	22.00	
3MHz	QPSK	1	0	23.39	23.47	23.42	25.00	
		1	7	23.56	23.60	23.53	25.00	
		1	14	23.49	23.45	23.46	25.00	
		8	0	22.63	22.65	22.66	24.00	
		8	4	22.62	22.63	22.60	24.00	
		8	7	22.56	22.61	22.52	24.00	
		15	0	22.63	22.64	22.60	24.00	
	16QAM	1	0	22.73	22.78	22.79	24.00	
		1	7	22.92	22.89	22.88	24.00	
		1	14	22.81	22.80	22.73	24.00	
		8	0	21.65	21.61	21.61	23.00	
		8	4	21.57	21.61	21.61	23.00	
		8	7	21.53	21.60	21.47	23.00	
		15	0	21.62	21.61	21.57	23.00	
	64QAM	1	0	21.65	21.62	21.59	23.00	
		1	7	21.81	21.73	21.67	23.00	
		1	14	21.63	21.66	21.58	23.00	
		8	0	20.62	20.60	20.60	22.00	
		8	4	20.56	20.58	20.60	22.00	
		8	7	20.52	20.59	20.51	22.00	
		15	0	20.58	20.63	20.56	22.00	
	5MHz	QPSK	1	0	23.38	23.43	23.40	25.00
			1	13	23.54	23.59	23.50	25.00
	1		24	23.46	23.40	23.42	25.00	
12	0		22.61	22.61	22.63	24.00		
12	6		22.59	22.58	22.56	24.00		
12	13		22.53	22.58	22.48	24.00		
25	0		22.61	22.60	22.55	24.00		
16QAM	1	0	22.71	22.76	22.77	24.00		



Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up	
				20450/829	20525/836.5	20600/844		
10MHz	64QAM	1	13	22.90	22.86	22.86	24.00	
		1	24	22.79	22.76	22.70	24.00	
		12	0	21.62	21.59	21.58	23.00	
		12	6	21.54	21.56	21.57	23.00	
		12	13	21.51	21.56	21.44	23.00	
		25	0	21.59	21.56	21.53	23.00	
	64QAM	1	0	21.60	21.60	21.57	23.00	
		1	13	21.79	21.70	21.65	23.00	
		1	24	21.64	21.65	21.59	23.00	
		12	0	20.61	20.62	20.61	22.00	
		12	6	20.54	20.55	20.59	22.00	
		12	13	20.50	20.55	20.48	22.00	
	10MHz	QPSK	1	0	23.35	23.39	23.37	25.00
			1	25	23.55	23.55	23.48	25.00
			1	49	23.44	23.39	23.39	25.00
			25	0	22.60	22.56	22.59	24.00
			25	13	22.57	22.54	22.53	24.00
			25	25	22.50	22.53	22.44	24.00
16QAM		50	0	22.58	22.55	22.51	24.00	
		1	0	22.68	22.72	22.72	24.00	
		1	25	22.87	22.84	22.82	24.00	
		1	49	22.76	22.73	22.68	24.00	
		25	0	21.59	21.55	21.55	23.00	
		25	13	21.51	21.54	21.54	23.00	
64QAM		25	25	21.48	21.51	21.40	23.00	
		50	0	21.57	21.52	21.50	23.00	
		1	0	21.58	21.56	21.52	23.00	
		1	25	21.75	21.68	21.61	23.00	
		1	49	21.58	21.59	21.53	23.00	
		25	0	20.56	20.54	20.54	22.00	
10MHz	64QAM	25	13	20.50	20.51	20.53	22.00	
		25	25	20.47	20.50	20.44	22.00	
		50	0	20.53	20.54	20.49	22.00	

LTE Band5							
DSI1				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				20407/824.7	20525/836.5	20643/848.3	
1.4MHz	QPSK	1	0	23.41	23.49	23.41	24.50
		1	2	23.56	23.52	23.47	24.50



		1	5	23.46	23.44	23.42	24.50		
		3	0	23.54	23.52	23.51	24.50		
		3	2	23.46	23.52	23.48	24.50		
		3	3	23.46	23.48	23.39	24.50		
		6	0	22.57	22.58	22.57	23.50		
		1	0	22.69	22.74	22.73	23.50		
		1	2	22.81	22.85	22.76	23.50		
	16QAM	1	5	22.77	22.72	22.69	23.50		
		3	0	22.50	22.48	22.48	23.50		
		3	2	22.48	22.48	22.49	23.50		
		3	3	22.44	22.47	22.34	23.50		
		6	0	21.56	21.57	21.51	22.50		
		1	0	21.66	21.70	21.61	22.50		
		1	2	21.79	21.80	21.73	22.50		
	64QAM	1	5	21.71	21.73	21.61	22.50		
		3	0	21.50	21.42	21.46	22.50		
		3	2	21.50	21.48	21.46	22.50		
		3	3	21.42	21.46	21.34	22.50		
		6	0	20.53	20.57	20.50	21.50		
						Channel/Frequency(MHz)			Tune-up
		Bandwidth	Modulation	RB allocation	offset	20415/825.5	20525/836.5	20635/847.5	
3MHz	QPSK	1	0	23.40	23.51	23.40	24.50		
		1	7	23.52	23.51	23.48	24.50		
		1	14	23.46	23.44	23.42	24.50		
		8	0	22.61	22.59	22.60	23.50		
		8	4	22.56	22.58	22.55	23.50		
		8	7	22.54	22.57	22.45	23.50		
		15	0	22.57	22.61	22.58	23.50		
	16QAM	1	0	22.69	22.72	22.73	23.50		
		1	7	22.81	22.83	22.77	23.50		
		1	14	22.76	22.74	22.68	23.50		
		8	0	21.59	21.57	21.57	22.50		
		8	4	21.56	21.56	21.57	22.50		
		8	7	21.51	21.54	21.43	22.50		
		15	0	21.57	21.57	21.49	22.50		
	64QAM	1	0	21.66	21.72	21.61	22.50		
		1	7	21.79	21.82	21.72	22.50		
		1	14	21.74	21.70	21.60	22.50		
		8	0	20.59	20.51	20.59	21.50		
		8	4	20.58	20.56	20.54	21.50		
		8	7	20.49	20.53	20.43	21.50		
		15	0	20.54	20.57	20.48	21.50		



Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				20425/826.5	20525/836.5	20625/846.5	
5MHz	QPSK	1	0	23.41	23.48	23.41	24.50
		1	13	23.53	23.55	23.49	24.50
		1	24	23.45	23.43	23.41	24.50
		12	0	22.62	22.60	22.61	23.50
		12	6	22.56	22.58	22.55	23.50
		12	13	22.53	22.58	22.46	23.50
		25	0	22.59	22.59	22.57	23.50
	16QAM	1	0	22.71	22.73	22.73	23.50
		1	13	22.83	22.84	22.78	23.50
		1	24	22.77	22.72	22.68	23.50
		12	0	21.59	21.60	21.58	22.50
		12	6	21.55	21.55	21.56	22.50
		12	13	21.52	21.55	21.44	22.50
		25	0	21.57	21.57	21.49	22.50
	64QAM	1	0	21.63	21.69	21.61	22.50
		1	13	21.80	21.79	21.73	22.50
		1	24	21.74	21.71	21.64	22.50
		12	0	20.61	20.58	20.60	21.50
		12	6	20.58	20.57	20.56	21.50
		12	13	20.50	20.54	20.44	21.50
		25	0	20.54	20.57	20.48	21.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
10MHz	QPSK	1	0	23.38	23.44	23.38	24.50
		1	25	23.52	23.51	23.47	24.50
		1	49	23.43	23.42	23.38	24.50
		25	0	22.59	22.55	22.57	23.50
		25	13	22.54	22.54	22.52	23.50
		25	25	22.50	22.53	22.42	23.50
		50	0	22.56	22.54	22.53	23.50
	16QAM	1	0	22.68	22.69	22.68	23.50
		1	25	22.80	22.82	22.74	23.50
		1	49	22.74	22.69	22.66	23.50
		25	0	21.56	21.56	21.55	22.50
		25	13	21.52	21.53	21.53	22.50
		25	25	21.49	21.50	21.40	22.50
		50	0	21.55	21.53	21.46	22.50
	64QAM	1	0	21.61	21.65	21.56	22.50
		1	25	21.76	21.77	21.69	22.50
		1	49	21.68	21.65	21.58	22.50



		25	0	20.56	20.50	20.53	21.50
		25	13	20.54	20.53	20.50	21.50
		25	25	20.47	20.49	20.40	21.50
		50	0	20.52	20.53	20.45	21.50

LTE Band5							
DSI4				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				20407/824.7	20525/836.5	20643/848.3	
1.4MHz	QPSK	1	0	22.47	22.56	22.52	23.50
		1	2	22.59	22.60	22.57	23.50
		1	5	22.52	22.55	22.51	23.50
		3	0	22.63	22.66	22.61	23.50
		3	2	22.58	22.60	22.61	23.50
		3	3	22.55	22.58	22.49	23.50
		6	0	22.59	22.61	22.60	23.50
	16QAM	1	0	22.71	22.79	22.82	23.50
		1	2	22.94	22.84	22.91	23.50
		1	5	22.80	22.78	22.75	23.50
		3	0	22.52	22.45	22.51	23.50
		3	2	22.49	22.51	22.47	23.50
		3	3	22.45	22.47	22.34	23.50
		6	0	21.57	21.58	21.56	22.50
	64QAM	1	0	21.65	21.67	21.66	22.50
		1	2	21.74	21.76	21.65	22.50
		1	5	21.64	21.61	21.54	22.50
		3	0	21.52	21.48	21.47	22.50
		3	2	21.49	21.47	21.47	22.50
		3	3	21.42	21.48	21.36	22.50
		6	0	20.55	20.56	20.50	21.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
3MHz	QPSK	1	0	22.44	22.54	22.48	23.50
		1	7	22.57	22.56	22.54	23.50
		1	14	22.49	22.50	22.47	23.50
		8	0	22.60	22.61	22.57	23.50
		8	4	22.56	22.56	22.56	23.50
		8	7	22.53	22.56	22.45	23.50
		15	0	22.59	22.60	22.58	23.50
	16QAM	1	0	22.71	22.75	22.79	23.50
		1	7	22.94	22.82	22.88	23.50
		1	14	22.77	22.76	22.71	23.50
		8	0	21.61	21.54	21.60	22.50
		8	7	21.61	21.54	21.60	22.50
		8	14	21.61	21.54	21.60	22.50
		15	0	21.61	21.54	21.60	22.50



Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up	
				20425/826.5	20525/836.5	20625/846.5		
		8	4	21.57	21.59	21.55	22.50	
		8	7	21.52	21.54	21.43	22.50	
		15	0	21.58	21.58	21.54	22.50	
	64QAM	1	0	21.65	21.69	21.66	22.50	
		1	7	21.74	21.78	21.64	22.50	
		1	14	21.67	21.58	21.53	22.50	
		8	0	20.61	20.57	20.60	21.50	
		8	4	20.57	20.55	20.55	21.50	
		8	7	20.49	20.55	20.45	21.50	
		15	0	20.56	20.56	20.48	21.50	
5MHz	QPSK	1	0	22.45	22.51	22.49	23.50	
		1	13	22.58	22.60	22.55	23.50	
		1	24	22.48	22.49	22.46	23.50	
		12	0	22.61	22.62	22.58	23.50	
		12	6	22.56	22.56	22.56	23.50	
		12	13	22.52	22.57	22.46	23.50	
		25	0	22.61	22.58	22.57	23.50	
	16QAM	1	0	22.73	22.76	22.79	23.50	
		1	13	22.96	22.83	22.89	23.50	
		1	24	22.78	22.74	22.71	23.50	
		12	0	21.61	21.57	21.61	22.50	
		12	6	21.56	21.58	21.54	22.50	
		12	13	21.53	21.55	21.44	22.50	
		25	0	21.58	21.58	21.54	22.50	
	64QAM	1	0	21.62	21.66	21.66	22.50	
		1	13	21.75	21.75	21.65	22.50	
		1	24	21.67	21.59	21.57	22.50	
		12	0	20.63	20.64	20.61	21.50	
		12	6	20.57	20.56	20.57	21.50	
		12	13	20.50	20.56	20.46	21.50	
		25	0	20.56	20.56	20.48	21.50	
	Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
					20450/829	20525/836.5	20600/844	
	10MHz	QPSK	1	0	22.42	22.47	22.46	23.50
			1	25	22.57	22.56	22.53	23.50
			1	49	22.46	22.48	22.43	23.50
			25	0	22.58	22.57	22.54	23.50
			25	13	22.54	22.52	22.53	23.50
25			25	22.49	22.52	22.42	23.50	
50			0	22.58	22.53	22.53	23.50	
16QAM		1	0	22.70	22.72	22.74	23.50	



		1	25	22.93	22.81	22.85	23.50
		1	49	22.75	22.71	22.69	23.50
		25	0	21.58	21.53	21.58	22.50
		25	13	21.53	21.56	21.51	22.50
		25	25	21.50	21.50	21.40	22.50
		50	0	21.56	21.54	21.51	22.50
	64QAM	1	0	21.60	21.62	21.61	22.50
		1	25	21.71	21.73	21.61	22.50
		1	49	21.61	21.53	21.51	22.50
		25	0	20.58	20.56	20.54	21.50
		25	13	20.53	20.52	20.51	21.50
		25	25	20.47	20.51	20.42	21.50
		50	0	20.54	20.52	20.45	21.50

LTE Band7							
Full Power&DSI2				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				20775/2502.5	21100/2535	21425/2567.5	
5MHz	QPSK	1	0	23.23	23.29	23.11	25.00
		1	13	23.45	23.45	23.32	25.00
		1	24	23.30	23.23	23.13	25.00
		12	0	22.37	22.52	22.37	24.00
		12	6	22.49	22.51	22.41	24.00
		12	13	22.52	22.48	22.31	24.00
		25	0	22.41	22.55	22.36	24.00
	16QAM	1	0	22.55	22.51	22.49	24.00
		1	13	22.81	22.70	22.73	24.00
		1	24	22.60	22.57	22.44	24.00
		12	0	21.35	21.48	21.36	23.00
		12	6	21.51	21.47	21.42	23.00
		12	13	21.46	21.51	21.29	23.00
		25	0	21.43	21.48	21.29	23.00
	64QAM	1	0	21.56	21.54	21.39	23.00
		1	13	21.75	21.72	21.60	23.00
		1	24	21.56	21.53	21.33	23.00
		12	0	20.35	20.45	20.33	22.00
		12	6	20.51	20.47	20.38	22.00
		12	13	20.47	20.47	20.29	22.00
		25	0	20.40	20.48	20.31	22.00
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
10MHz	QPSK	1	0	20800/2505	21100/2535	21400/2565	25.00
		1	25	23.25	23.30	23.14	25.00
				23.48	23.50	23.36	25.00





		1	49	23.32	23.27	23.16	25.00	
		25	0	22.40	22.57	22.41	24.00	
		25	13	22.52	22.56	22.45	24.00	
		25	25	22.54	22.52	22.36	24.00	
		50	0	22.45	22.57	22.40	24.00	
	16QAM	1	0	22.59	22.54	22.51	24.00	
		1	25	22.85	22.74	22.76	24.00	
		1	49	22.63	22.59	22.47	24.00	
		25	0	21.38	21.53	21.40	23.00	
		25	13	21.53	21.51	21.45	23.00	
		25	25	21.49	21.56	21.33	23.00	
		50	0	21.46	21.53	21.33	23.00	
	64QAM	1	0	21.58	21.53	21.41	23.00	
		1	25	21.78	21.72	21.63	23.00	
		1	49	21.55	21.55	21.36	23.00	
		25	0	20.38	20.50	20.33	22.00	
		25	13	20.53	20.51	20.41	22.00	
		25	25	20.50	20.52	20.33	22.00	
		50	0	20.43	20.53	20.35	22.00	
	Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
					20825/2507.5	21100/2535	21375/2562.5	
15MHz	QPSK	1	0	23.24	23.26	23.12	25.00	
		1	38	23.46	23.49	23.33	25.00	
		1	74	23.29	23.22	23.12	25.00	
		36	0	22.38	22.53	22.38	24.00	
		36	18	22.49	22.51	22.41	24.00	
		36	39	22.51	22.49	22.32	24.00	
		75	0	22.43	22.53	22.35	24.00	
	16QAM	1	0	22.57	22.52	22.49	24.00	
		1	38	22.83	22.71	22.74	24.00	
		1	74	22.61	22.55	22.44	24.00	
		36	0	21.35	21.51	21.37	23.00	
		36	18	21.50	21.46	21.41	23.00	
		36	39	21.47	21.52	21.30	23.00	
		75	0	21.43	21.48	21.29	23.00	
	64QAM	1	0	21.53	21.51	21.39	23.00	
		1	38	21.76	21.69	21.61	23.00	
		1	74	21.56	21.54	21.37	23.00	
		36	0	20.37	20.52	20.34	22.00	
		36	18	20.51	20.48	20.40	22.00	
		36	39	20.48	20.48	20.30	22.00	
		75	0	20.40	20.48	20.31	22.00	



Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				20850/2510	21100/2535	21350/2560	
20MHz	QPSK	1	0	23.21	23.22	23.09	25.00
		1	50	23.45	23.41	23.31	25.00
		1	99	23.27	23.21	23.09	25.00
		50	0	22.35	22.48	22.34	24.00
		50	25	22.47	22.47	22.38	24.00
		50	50	22.48	22.44	22.28	24.00
		100	0	22.40	22.48	22.31	24.00
	16QAM	1	0	22.54	22.48	22.44	24.00
		1	50	22.80	22.69	22.70	24.00
		1	99	22.58	22.52	22.42	24.00
		50	0	21.32	21.47	21.34	23.00
		50	25	21.47	21.44	21.38	23.00
		50	50	21.44	21.47	21.26	23.00
		100	0	21.41	21.44	21.26	23.00
	64QAM	1	0	21.51	21.47	21.34	23.00
		1	50	21.72	21.67	21.57	23.00
		1	99	21.50	21.48	21.31	23.00
		50	0	20.32	20.44	20.27	22.00
		50	25	20.47	20.44	20.34	22.00
		50	50	20.45	20.43	20.26	22.00
		100	0	20.38	20.44	20.28	22.00

LTE Band7							
DSI1				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				20775/2502.5	21100/2535	21425/2567.5	
5MHz	QPSK	1	0	19.62	19.54	19.48	21.00
		1	13	19.85	19.73	19.68	21.00
		1	24	19.69	19.54	19.49	21.00
		12	0	19.69	19.72	19.68	21.00
		12	6	19.84	19.73	19.74	21.00
		12	13	19.82	19.64	19.63	21.00
		25	0	19.66	19.75	19.65	21.00
	16QAM	1	0	19.83	19.76	19.81	21.00
		1	13	20.11	20.02	20.03	21.00
		1	24	19.94	19.88	19.76	21.00
		12	0	19.70	19.71	19.67	21.00
		12	6	19.87	19.74	19.75	21.00
		12	13	19.80	19.69	19.60	21.00
		25	0	19.77	19.72	19.65	21.00



Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up	
				20800/2505	21100/2535	21400/2565		
	64QAM	1	0	19.88	19.83	19.71	21.00	
		1	13	20.11	19.95	19.88	21.00	
		1	24	19.94	19.69	19.66	21.00	
		12	0	19.69	19.73	19.71	21.00	
		12	6	19.86	19.70	19.71	21.00	
		12	13	19.81	19.72	19.63	21.00	
		25	0	19.76	19.74	19.61	21.00	
10MHz	QPSK	1	0	19.64	19.55	19.51	21.00	
		1	25	19.88	19.78	19.72	21.00	
		1	49	19.71	19.58	19.52	21.00	
		25	0	19.72	19.77	19.72	21.00	
		25	13	19.87	19.78	19.78	21.00	
		25	25	19.84	19.68	19.68	21.00	
		50	0	19.70	19.77	19.69	21.00	
	16QAM	1	0	19.87	19.79	19.83	21.00	
		1	25	20.15	20.06	20.06	21.00	
		1	49	19.97	19.90	19.79	21.00	
		25	0	19.73	19.76	19.71	21.00	
		25	13	19.89	19.78	19.78	21.00	
		25	25	19.83	19.74	19.64	21.00	
		50	0	19.80	19.77	19.69	21.00	
	64QAM	1	0	19.90	19.82	19.73	21.00	
		1	25	20.14	19.95	19.91	21.00	
		1	49	19.93	19.71	19.69	21.00	
		25	0	19.72	19.78	19.71	21.00	
		25	13	19.88	19.74	19.74	21.00	
		25	25	19.84	19.77	19.67	21.00	
		50	0	19.79	19.79	19.65	21.00	
	Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
					20825/2507.5	21100/2535	21375/2562.5	
	15MHz	QPSK	1	0	19.63	19.51	19.49	21.00
			1	38	19.86	19.77	19.69	21.00
			1	74	19.68	19.53	19.48	21.00
			36	0	19.70	19.73	19.69	21.00
			36	18	19.84	19.73	19.74	21.00
36			39	19.81	19.65	19.64	21.00	
75			0	19.68	19.73	19.64	21.00	
16QAM		1	0	19.85	19.77	19.81	21.00	
		1	38	20.13	20.03	20.04	21.00	
		1	74	19.95	19.86	19.76	21.00	
		36	0	19.70	19.74	19.68	21.00	



Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up	
				20850/2510	21100/2535	21350/2560		
20MHz	64QAM	36	18	19.86	19.73	19.74	21.00	
		36	39	19.81	19.70	19.61	21.00	
		75	0	19.77	19.72	19.65	21.00	
		1	0	19.85	19.80	19.71	21.00	
		1	38	20.12	19.92	19.89	21.00	
		1	74	19.94	19.70	19.70	21.00	
		36	0	19.71	19.80	19.72	21.00	
		36	18	19.86	19.71	19.73	21.00	
		36	39	19.82	19.73	19.64	21.00	
	75	0	19.76	19.74	19.61	21.00		
	20MHz	QPSK	1	0	19.60	19.47	19.46	21.00
			1	50	19.85	19.73	19.67	21.00
			1	99	19.66	19.52	19.45	21.00
			50	0	19.67	19.68	19.65	21.00
			50	25	19.82	19.69	19.71	21.00
			50	50	19.78	19.60	19.60	21.00
			100	0	19.65	19.68	19.60	21.00
		16QAM	1	0	19.82	19.73	19.76	21.00
1			50	20.10	20.01	20.00	21.00	
1			99	19.92	19.83	19.74	21.00	
50			0	19.67	19.70	19.65	21.00	
50			25	19.83	19.71	19.71	21.00	
50			50	19.78	19.65	19.57	21.00	
100			0	19.75	19.68	19.62	21.00	
64QAM		1	0	19.83	19.76	19.66	21.00	
		1	50	20.08	19.90	19.85	21.00	
		1	99	19.88	19.64	19.64	21.00	
		50	0	19.66	19.72	19.65	21.00	
		50	25	19.82	19.67	19.67	21.00	
		50	50	19.79	19.68	19.60	21.00	
		100	0	19.74	19.70	19.58	21.00	

LTE Band7							
DSI4				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				20775/2502.5	21100/2535	21425/2567.5	
5MHz	QPSK	1	0	22.22	22.33	22.19	23.50
		1	13	22.51	22.46	22.39	23.50
		1	24	22.33	22.27	22.16	23.50
		12	0	22.37	22.52	22.36	23.50
		12	6	22.51	22.51	22.37	23.50



		12	13	22.48	22.50	22.30	23.50	
		25	0	22.44	22.53	22.34	23.50	
	16QAM	1	0	22.51	22.56	22.51	23.50	
			13	22.75	22.73	22.70	23.50	
		1	24	22.59	22.55	22.45	23.50	
		12	0	21.38	21.48	21.33	22.50	
		12	6	21.50	21.48	21.39	22.50	
		12	13	21.47	21.50	21.29	22.50	
		25	0	21.43	21.48	21.31	22.50	
		64QAM	1	0	21.50	21.52	21.33	22.50
	13			21.72	21.79	21.55	22.50	
	1		24	21.60	21.48	21.28	22.50	
	12		0	20.38	20.45	20.34	21.50	
	12		6	20.51	20.48	20.39	21.50	
	12		13	20.47	20.48	20.25	21.50	
	25		0	20.40	20.47	20.29	21.50	
	Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
10MHz	QPSK	1	0	22.24	22.34	22.22	23.50	
		1	25	22.54	22.51	22.43	23.50	
		1	49	22.35	22.31	22.19	23.50	
		25	0	22.40	22.57	22.40	23.50	
		25	13	22.54	22.56	22.41	23.50	
		25	25	22.50	22.54	22.35	23.50	
		50	0	22.48	22.55	22.38	23.50	
	16QAM	1	0	22.55	22.59	22.53	23.50	
			25	22.79	22.77	22.73	23.50	
		1	49	22.62	22.57	22.48	23.50	
		25	0	21.41	21.53	21.37	22.50	
		25	13	21.52	21.52	21.42	22.50	
		25	25	21.50	21.55	21.33	22.50	
		50	0	21.46	21.53	21.35	22.50	
	64QAM	1	0	21.52	21.51	21.35	22.50	
			25	21.75	21.79	21.58	22.50	
		1	49	21.59	21.50	21.31	22.50	
		25	0	20.41	20.50	20.34	21.50	
		25	13	20.53	20.52	20.42	21.50	
		25	25	20.50	20.53	20.29	21.50	
		50	0	20.43	20.52	20.33	21.50	
	Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
	15MHz	QPSK	1	0	22.23	22.30	22.20	23.50
			1	38	22.52	22.50	22.40	23.50



		1	74	22.32	22.26	22.15	23.50	
		36	0	22.38	22.53	22.37	23.50	
		36	18	22.51	22.51	22.37	23.50	
		36	39	22.47	22.51	22.31	23.50	
		75	0	22.46	22.51	22.33	23.50	
		16QAM	1	0	22.53	22.57	22.51	23.50
			1	38	22.77	22.74	22.71	23.50
	1		74	22.60	22.53	22.45	23.50	
	36		0	21.38	21.51	21.34	22.50	
	36		18	21.49	21.47	21.38	22.50	
	36		39	21.48	21.51	21.30	22.50	
	75		0	21.43	21.48	21.31	22.50	
	64QAM	1	0	21.47	21.49	21.33	22.50	
		1	38	21.73	21.76	21.56	22.50	
		1	74	21.60	21.49	21.32	22.50	
		36	0	20.40	20.52	20.35	21.50	
		36	18	20.51	20.49	20.41	21.50	
		36	39	20.48	20.49	20.26	21.50	
		75	0	20.40	20.47	20.29	21.50	
	Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
					20850/2510	21100/2535	21350/2560	
20MHz	QPSK	1	0	22.20	22.26	22.17	23.50	
		1	50	22.51	22.46	22.38	23.50	
		1	99	22.30	22.25	22.12	23.50	
		50	0	22.35	22.48	22.33	23.50	
		50	25	22.49	22.47	22.34	23.50	
		50	50	22.44	22.46	22.27	23.50	
		100	0	22.43	22.46	22.29	23.50	
	16QAM	1	0	22.50	22.53	22.46	23.50	
		1	50	22.74	22.72	22.67	23.50	
		1	99	22.57	22.50	22.43	23.50	
		50	0	21.35	21.47	21.31	22.50	
		50	25	21.46	21.45	21.35	22.50	
		50	50	21.45	21.46	21.26	22.50	
		100	0	21.41	21.44	21.28	22.50	
	64QAM	1	0	21.45	21.45	21.28	22.50	
		1	50	21.69	21.74	21.52	22.50	
		1	99	21.54	21.43	21.26	22.50	
		50	0	20.35	20.44	20.28	21.50	
		50	25	20.47	20.45	20.35	21.50	
		50	50	20.45	20.44	20.22	21.50	
		100	0	20.38	20.43	20.26	21.50	



LTE Band13							
Full Power&DSI2				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				23205/779.5	23230/782	23255/784.5	
5MHz	QPSK	1	0	23.13	23.14	23.13	25.00
		1	13	23.13	23.16	23.14	25.00
		1	24	23.06	23.05	23.07	25.00
		12	0	22.14	22.16	22.15	24.00
		12	6	22.14	22.16	22.15	24.00
		12	13	22.11	22.13	22.12	24.00
		25	0	22.12	22.14	22.13	24.00
	16QAM	1	0	22.23	22.24	22.25	24.00
		1	13	22.43	22.42	22.44	24.00
		1	24	22.36	22.36	22.35	24.00
		12	0	21.14	21.15	21.14	23.00
		12	6	21.15	21.14	21.15	23.00
		12	13	21.10	21.12	21.11	23.00
		25	0	21.11	21.13	21.12	23.00
	64QAM	1	0	21.18	21.20	21.21	23.00
		1	13	21.33	21.31	21.33	23.00
		1	24	21.25	21.25	21.25	23.00
		12	0	20.18	20.21	20.20	22.00
		12	6	20.20	20.20	20.22	22.00
		12	13	20.13	20.15	20.14	22.00
		25	0	20.14	20.16	20.15	22.00
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
10MHz	QPSK	1	0	/	23.10	/	25.00
		1	25	/	23.12	/	25.00
		1	49	/	23.04	/	25.00
		25	0	/	22.11	/	24.00
		25	13	/	22.12	/	24.00
		25	25	/	22.08	/	24.00
		50	0	/	22.09	/	24.00
	16QAM	1	0	/	22.20	/	24.00
		1	25	/	22.40	/	24.00
		1	49	/	22.33	/	24.00
		25	0	/	21.11	/	23.00
		25	13	/	21.12	/	23.00
		25	25	/	21.07	/	23.00
		50	0	/	21.09	/	23.00
	64QAM	1	0	/	21.16	/	23.00



		1	25	/	21.29	/	23.00
		1	49	/	21.19	/	23.00
		25	0	/	20.13	/	22.00
		25	13	/	20.16	/	22.00
		25	25	/	20.10	/	22.00
		50	0	/	20.12	/	22.00

LTE Band13							
DSI1&DSI4				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				23205/779.5	23230/782	23255/784.5	
5MHz	QPSK	1	0	23.09	23.10	23.09	24.50
		1	13	23.17	23.20	23.18	24.50
		1	24	23.06	23.05	23.07	24.50
		12	0	22.12	22.14	22.13	23.50
		12	6	22.13	22.15	22.14	23.50
		12	13	22.14	22.16	22.15	23.50
		25	0	22.11	22.13	22.12	23.50
	16QAM	1	0	22.20	22.21	22.22	23.50
		1	13	22.41	22.40	22.42	23.50
		1	24	22.29	22.29	22.28	23.50
		12	0	21.11	21.12	21.11	22.50
		12	6	21.13	21.12	21.13	22.50
		12	13	21.14	21.16	21.15	22.50
		25	0	21.09	21.11	21.10	22.50
	64QAM	1	0	21.10	21.12	21.13	22.50
		1	13	21.34	21.32	21.34	22.50
		1	24	21.24	21.24	21.24	22.50
		12	0	20.18	20.21	20.20	21.50
		12	6	20.21	20.21	20.23	21.50
		12	13	20.18	20.20	20.19	21.50
		25	0	20.12	20.14	20.13	21.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				/	23230/782	/	
10MHz	QPSK	1	0	/	23.06	/	24.50
		1	25	/	23.16	/	24.50
		1	49	/	23.04	/	24.50
		25	0	/	22.09	/	23.50
		25	13	/	22.11	/	23.50
		25	25	/	22.11	/	23.50
		50	0	/	22.08	/	23.50
	16QAM	1	0	/	22.17	/	23.50
		1	25	/	22.38	/	23.50





		1	49	/	22.26	/	23.50
		25	0	/	21.08	/	22.50
		25	13	/	21.10	/	22.50
		25	25	/	21.11	/	22.50
		50	0	/	21.07	/	22.50
	64QAM	1	0	/	21.08	/	22.50
		1	25	/	21.30	/	22.50
		1	49	/	21.18	/	22.50
		25	0	/	20.13	/	21.50
		25	13	/	20.17	/	21.50
		25	25	/	20.15	/	21.50
		50	0	/	20.10	/	21.50

LTE Band26							
Full Power&DSI2				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				26697/814.7	26865/831.5	27033/848.3	
1.4MHz	QPSK	1	0	23.19	23.26	23.28	25.00
		1	2	23.42	23.45	23.38	25.00
		1	5	23.33	23.30	23.29	25.00
		3	0	23.34	23.41	23.41	25.00
		3	2	23.40	23.48	23.43	25.00
		3	3	23.34	23.39	23.35	25.00
		6	0	22.39	22.51	22.45	24.00
	16QAM	1	0	22.47	22.54	22.51	24.00
		1	2	22.69	22.68	22.64	24.00
		1	5	22.66	22.56	22.53	24.00
		3	0	22.28	22.40	22.35	24.00
		3	2	22.40	22.41	22.38	24.00
		3	3	22.31	22.41	22.28	24.00
		6	0	21.38	21.50	21.47	23.00
	64QAM	1	0	21.38	21.51	21.54	23.00
		1	2	21.53	21.66	21.63	23.00
		1	5	21.49	21.56	21.55	23.00
		3	0	21.29	21.41	21.31	23.00
		3	2	21.39	21.38	21.39	23.00
		3	3	21.33	21.37	21.28	23.00
		6	0	20.36	20.47	20.43	22.00
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
3MHz	QPSK	1	0	26705/815.5	26865/831.5	27025/847.5	25.00
		1	7	23.21	23.30	23.31	25.00
		1	14	23.40	23.48	23.42	25.00



		8	0	22.44	22.53	22.54	24.00	
		8	4	22.52	22.58	22.55	24.00	
		8	7	22.44	22.50	22.45	24.00	
		15	0	22.39	22.55	22.48	24.00	
	16QAM	1	0	22.47	22.56	22.54	24.00	
		1	7	22.69	22.68	22.68	24.00	
		1	14	22.68	22.60	22.56	24.00	
		8	0	21.39	21.53	21.47	23.00	
		8	4	21.51	21.54	21.50	23.00	
		8	7	21.41	21.53	21.41	23.00	
		15	0	21.41	21.54	21.50	23.00	
		64QAM	1	0	21.41	21.53	21.57	23.00
	1		7	21.56	21.66	21.65	23.00	
	1		14	21.51	21.55	21.58	23.00	
	8		0	20.40	20.54	20.43	22.00	
	8		4	20.50	20.51	20.51	22.00	
	8		7	20.43	20.49	20.41	22.00	
	15		0	20.39	20.51	20.46	22.00	
	Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
					26715/816.5	26865/831.5	27015/846.5	
	5MHz	QPSK	1	0	23.20	23.29	23.30	25.00
1			13	23.41	23.49	23.43	25.00	
1			24	23.35	23.34	23.32	25.00	
12			0	22.44	22.53	22.54	24.00	
12			6	22.53	22.59	22.54	24.00	
12			13	22.44	22.52	22.46	24.00	
25			0	22.43	22.56	22.50	24.00	
16QAM		1	0	22.51	22.55	22.53	24.00	
		1	13	22.73	22.70	22.68	24.00	
		1	24	22.68	22.60	22.55	24.00	
		12	0	21.40	21.54	21.48	23.00	
		12	6	21.50	21.53	21.49	23.00	
		12	13	21.41	21.53	21.41	23.00	
		25	0	21.42	21.55	21.49	23.00	
64QAM		1	0	21.40	21.52	21.56	23.00	
		1	13	21.56	21.68	21.65	23.00	
		1	24	21.51	21.55	21.57	23.00	
		12	0	20.41	20.55	20.44	22.00	
		12	6	20.49	20.50	20.50	22.00	
		12	13	20.43	20.49	20.41	22.00	
		25	0	20.40	20.52	20.45	22.00	



Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				26740/819	26865/831.5	26990/844	
10MHz	QPSK	1	0	23.19	23.25	23.28	25.00
		1	25	23.39	23.48	23.40	25.00
		1	49	23.32	23.29	23.28	25.00
		25	0	22.42	22.49	22.51	24.00
		25	13	22.50	22.54	22.50	24.00
		25	25	22.41	22.49	22.42	24.00
		50	0	22.41	22.52	22.45	24.00
	16QAM	1	0	22.49	22.53	22.51	24.00
		1	25	22.71	22.67	22.66	24.00
		1	49	22.66	22.56	22.52	24.00
		25	0	21.37	21.52	21.45	23.00
		25	13	21.47	21.48	21.45	23.00
		25	25	21.39	21.49	21.38	23.00
		50	0	21.39	21.50	21.45	23.00
	64QAM	1	0	21.35	21.50	21.54	23.00
		1	25	21.54	21.65	21.63	23.00
		1	49	21.52	21.54	21.58	23.00
		25	0	20.40	20.57	20.45	22.00
		25	13	20.47	20.47	20.49	22.00
		25	25	20.41	20.45	20.38	22.00
		50	0	20.37	20.47	20.41	22.00
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
15MHz	QPSK	1	0	23.16	23.21	23.25	25.00
		1	38	23.38	23.44	23.38	25.00
		1	74	23.30	23.28	23.25	25.00
		36	0	22.39	22.51	22.47	24.00
		36	18	22.48	22.50	22.47	24.00
		36	39	22.38	22.44	22.38	24.00
		75	0	22.38	22.47	22.41	24.00
	16QAM	1	0	22.46	22.49	22.46	24.00
		1	38	22.68	22.65	22.62	24.00
		1	74	22.63	22.53	22.50	24.00
		36	0	21.34	21.48	21.42	23.00
		36	18	21.44	21.46	21.42	23.00
		36	39	21.36	21.44	21.34	23.00
		75	0	21.37	21.46	21.42	23.00
	64QAM	1	0	21.33	21.46	21.49	23.00
		1	38	21.50	21.63	21.59	23.00
		1	74	21.46	21.48	21.52	23.00



		36	0	20.35	20.49	20.38	22.00
		36	18	20.43	20.43	20.43	22.00
		36	39	20.38	20.40	20.34	22.00
		75	0	20.35	20.43	20.38	22.00

LTE Band26							
DSI1&DSI4				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				26697/814.7	26865/831.5	27033/848.3	
1.4MHz	QPSK	1	0	23.18	23.24	23.26	24.50
		1	2	23.45	23.44	23.34	24.50
		1	5	23.35	23.29	23.28	24.50
		3	0	23.30	23.47	23.37	24.50
		3	2	23.38	23.48	23.43	24.50
		3	3	23.34	23.40	23.35	24.50
		6	0	22.39	22.51	22.45	23.50
	16QAM	1	0	22.45	22.54	22.58	23.50
		1	2	22.65	22.72	22.67	23.50
		1	5	22.64	22.59	22.52	23.50
		3	0	22.28	22.40	22.33	23.50
		3	2	22.39	22.41	22.38	23.50
		3	3	22.27	22.37	22.27	23.50
		6	0	21.39	21.48	21.44	22.50
	64QAM	1	0	21.47	21.46	21.54	22.50
		1	2	21.57	21.67	21.63	22.50
		1	5	21.56	21.54	21.52	22.50
		3	0	21.26	21.37	21.30	22.50
		3	2	21.39	21.39	21.39	22.50
		3	3	21.28	21.37	21.30	22.50
		6	0	20.34	20.47	20.45	21.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				26705/815.5	26865/831.5	27025/847.5	
3MHz	QPSK	1	0	23.17	23.26	23.25	24.50
		1	7	23.41	23.43	23.35	24.50
		1	14	23.35	23.29	23.28	24.50
		8	0	22.37	22.54	22.46	23.50
		8	4	22.48	22.54	22.50	23.50
		8	7	22.42	22.49	22.41	23.50
		15	0	22.39	22.54	22.46	23.50
	16QAM	1	0	22.45	22.52	22.58	23.50
		1	7	22.65	22.70	22.68	23.50
		1	14	22.63	22.61	22.51	23.50
		8	0	21.37	21.49	21.42	22.50



Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				26715/816.5	26865/831.5	27015/846.5	
	64QAM	8	4	21.47	21.49	21.46	22.50
		8	7	21.34	21.44	21.36	22.50
		15	0	21.40	21.48	21.42	22.50
		1	0	21.47	21.48	21.54	22.50
		1	7	21.57	21.69	21.62	22.50
		1	14	21.59	21.51	21.51	22.50
		8	0	20.35	20.46	20.43	21.50
		8	4	20.47	20.47	20.47	21.50
		8	7	20.35	20.44	20.39	21.50
		15	0	20.35	20.47	20.43	21.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				26740/819	26865/831.5	26990/844	
5MHz	QPSK	1	0	23.19	23.27	23.28	24.50
		1	13	23.44	23.48	23.39	24.50
		1	24	23.37	23.33	23.31	24.50
		12	0	22.40	22.59	22.50	23.50
		12	6	22.51	22.59	22.54	23.50
		12	13	22.44	22.53	22.46	23.50
		25	0	22.43	22.56	22.50	23.50
	16QAM	1	0	22.49	22.55	22.60	23.50
		1	13	22.69	22.74	22.71	23.50
		1	24	22.66	22.63	22.54	23.50
		12	0	21.40	21.54	21.46	22.50
		12	6	21.49	21.53	21.49	22.50
		12	13	21.37	21.49	21.40	22.50
		25	0	21.43	21.53	21.46	22.50
	64QAM	1	0	21.49	21.47	21.56	22.50
		1	13	21.60	21.69	21.65	22.50
		1	24	21.58	21.53	21.54	22.50
		12	0	20.38	20.51	20.43	21.50
		12	6	20.49	20.51	20.50	21.50
		12	13	20.38	20.49	20.43	21.50
		25	0	20.38	20.52	20.47	21.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				26740/819	26865/831.5	26990/844	
10MHz	QPSK	1	0	23.18	23.23	23.26	24.50
		1	25	23.42	23.47	23.36	24.50
		1	49	23.34	23.28	23.27	24.50
		25	0	22.38	22.55	22.47	23.50
		25	13	22.48	22.54	22.50	23.50
		25	25	22.41	22.50	22.42	23.50
		50	0	22.41	22.52	22.45	23.50
	16QAM	1	0	22.47	22.53	22.58	23.50



Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up	
				26765/821.5	26865/831.5	26965/841.5		
15MHz	64QAM	1	25	22.67	22.71	22.69	23.50	
		1	49	22.64	22.59	22.51	23.50	
		25	0	21.37	21.52	21.43	22.50	
		25	13	21.46	21.48	21.45	22.50	
		25	25	21.35	21.45	21.37	22.50	
		50	0	21.40	21.48	21.42	22.50	
	QPSK	1	0	21.44	21.45	21.54	22.50	
		1	25	21.58	21.66	21.63	22.50	
		1	49	21.59	21.52	21.55	22.50	
		25	0	20.37	20.53	20.44	21.50	
		25	13	20.47	20.48	20.49	21.50	
		25	25	20.36	20.45	20.40	21.50	
	15MHz	16QAM	50	0	20.35	20.47	20.43	21.50
			1	0	23.15	23.19	23.23	24.50
1			38	23.41	23.43	23.34	24.50	
1			74	23.32	23.27	23.24	24.50	
36			0	22.35	22.50	22.43	23.50	
36			18	22.46	22.50	22.47	23.50	
64QAM		36	39	22.38	22.45	22.38	23.50	
		75	0	22.38	22.47	22.41	23.50	
		1	0	22.44	22.49	22.53	23.50	
		1	38	22.64	22.69	22.65	23.50	
		1	74	22.61	22.56	22.49	23.50	
		36	0	21.34	21.48	21.40	22.50	
QPSK		36	18	21.43	21.46	21.42	22.50	
		36	39	21.32	21.40	21.33	22.50	
	75	0	21.38	21.44	21.39	22.50		
	1	0	21.42	21.41	21.49	22.50		
	1	38	21.54	21.64	21.59	22.50		
	1	74	21.53	21.46	21.49	22.50		
16QAM	36	0	20.32	20.45	20.37	21.50		
	36	18	20.43	20.44	20.43	21.50		
	36	39	20.33	20.40	20.36	21.50		
	75	0	20.33	20.43	20.40	21.50		
	1	0	20.32	20.45	20.37	21.50		
	1	13	23.25	23.22	23.26	25.00		

LTE Band38							
Full Power&DSI2				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				37775/2572.5	38000/2595	38225/2617.5	
5MHz	QPSK	1	0	23.05	23.12	23.06	25.00
		1	13	23.25	23.22	23.26	25.00



		1	24	23.05	23.05	23.07	25.00	
		12	0	22.14	22.12	22.12	24.00	
		12	6	22.23	22.19	22.18	24.00	
		12	13	22.24	22.17	22.15	24.00	
		25	0	22.16	22.19	22.20	24.00	
	16QAM	1	0	22.28	22.22	22.26	24.00	
		1	13	22.49	22.44	22.48	24.00	
		1	24	22.28	22.27	22.21	24.00	
		12	0	21.21	21.13	21.16	23.00	
		12	6	21.27	21.22	21.25	23.00	
		12	13	21.25	21.21	21.17	23.00	
		25	0	21.20	21.20	21.20	23.00	
	64QAM	1	0	21.19	21.11	21.06	23.00	
		1	13	21.40	21.37	21.33	23.00	
		1	24	21.13	21.09	21.11	23.00	
		12	0	20.17	20.13	20.19	22.00	
		12	6	20.22	20.19	20.25	22.00	
		12	13	20.21	20.18	20.19	22.00	
		25	0	20.16	20.17	20.17	22.00	
	Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
					37800/2575	38000/2595	38200/2615	
10MHz	QPSK	1	0	23.08	23.14	23.10	25.00	
		1	25	23.27	23.26	23.29	25.00	
		1	49	23.08	23.10	23.11	25.00	
		25	0	22.17	22.17	22.16	24.00	
		25	13	22.25	22.23	22.23	24.00	
		25	25	22.26	22.19	22.19	24.00	
		50	0	22.16	22.20	22.22	24.00	
	16QAM	1	0	22.28	22.26	22.29	24.00	
		1	25	22.49	22.46	22.51	24.00	
		1	49	22.31	22.29	22.25	24.00	
		25	0	21.23	21.17	21.19	23.00	
		25	13	21.30	21.27	21.29	23.00	
		25	25	21.28	21.26	21.21	23.00	
		50	0	21.22	21.24	21.25	23.00	
	64QAM	1	0	21.22	21.11	21.09	23.00	
		1	25	21.43	21.35	21.36	23.00	
		1	49	21.12	21.11	21.15	23.00	
		25	0	20.19	20.17	20.18	22.00	
		25	13	20.25	20.24	20.29	22.00	
		25	25	20.24	20.23	20.23	22.00	
		50	0	20.18	20.21	20.22	22.00	



Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				37825/2577.5	38000/2595	38175/2612.5	
15MHz	QPSK	1	0	23.06	23.09	23.07	25.00
		1	38	23.26	23.26	23.27	25.00
		1	74	23.04	23.04	23.06	25.00
		36	0	22.15	22.13	22.13	24.00
		36	18	22.23	22.19	22.18	24.00
		36	39	22.23	22.18	22.16	24.00
		75	0	22.18	22.17	22.19	24.00
	16QAM	1	0	22.30	22.23	22.26	24.00
		1	38	22.51	22.45	22.49	24.00
		1	74	22.29	22.25	22.21	24.00
		36	0	21.21	21.16	21.17	23.00
		36	18	21.26	21.21	21.24	23.00
		36	39	21.26	21.22	21.18	23.00
		75	0	21.20	21.20	21.20	23.00
	64QAM	1	0	21.16	21.08	21.06	23.00
		1	38	21.41	21.34	21.34	23.00
		1	74	21.13	21.10	21.15	23.00
		36	0	20.19	20.20	20.20	22.00
		36	18	20.22	20.20	20.27	22.00
		36	39	20.22	20.19	20.20	22.00
		75	0	20.16	20.17	20.17	22.00
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
20MHz	QPSK	1	0	23.03	23.05	23.04	25.00
		1	50	23.25	23.22	23.25	25.00
		1	99	23.02	23.03	23.03	25.00
		50	0	22.12	22.08	22.09	24.00
		50	25	22.21	22.15	22.15	24.00
		50	50	22.20	22.13	22.12	24.00
		100	0	22.15	22.12	22.15	24.00
	16QAM	1	0	22.27	22.19	22.21	24.00
		1	50	22.48	22.43	22.45	24.00
		1	99	22.26	22.22	22.19	24.00
		50	0	21.18	21.12	21.14	23.00
		50	25	21.23	21.19	21.21	23.00
		50	50	21.23	21.17	21.14	23.00
		100	0	21.18	21.16	21.17	23.00
	64QAM	1	0	21.14	21.04	21.01	23.00
		1	50	21.37	21.32	21.30	23.00
		1	99	21.07	21.04	21.09	23.00





		50	0	20.14	20.12	20.13	22.00
		50	25	20.18	20.16	20.21	22.00
		50	50	20.19	20.14	20.16	22.00
		100	0	20.14	20.13	20.14	22.00

LTE Band38							
DSI1				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				37775/2572.5	38000/2595	38225/2617.5	
5MHz	QPSK	1	0	22.25	22.27	22.29	24.00
		1	13	22.45	22.36	22.46	24.00
		1	24	22.25	22.27	22.27	24.00
		12	0	21.94	21.84	21.92	23.00
		12	6	22.03	21.92	21.98	23.00
		12	13	22.04	21.89	21.95	23.00
		25	0	21.96	21.92	21.99	23.00
	16QAM	1	0	22.08	21.93	22.06	23.00
		1	13	22.29	22.16	22.28	23.00
		1	24	22.08	21.99	22.01	23.00
		12	0	21.01	20.85	20.96	22.00
		12	6	21.07	20.94	21.05	22.00
		12	13	21.05	20.93	20.97	22.00
		25	0	21.00	20.90	21.00	22.00
	64QAM	1	0	20.99	20.83	20.86	22.00
		1	13	21.20	21.04	21.13	22.00
		1	24	20.93	20.80	20.91	22.00
		12	0	19.97	19.89	19.99	21.00
		12	6	20.02	19.99	20.05	21.00
		12	13	20.01	19.96	19.99	21.00
		25	0	19.96	19.90	19.97	21.00
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				37800/2575	38000/2595	38200/2615	
10MHz	QPSK	1	0	22.27	22.28	22.32	24.00
		1	25	22.48	22.41	22.50	24.00
		1	49	22.27	22.31	22.30	24.00
		25	0	21.97	21.89	21.96	23.00
		25	13	22.06	21.97	22.02	23.00
		25	25	22.06	21.93	22.00	23.00
		50	0	22.00	21.94	22.03	23.00
	16QAM	1	0	22.12	21.96	22.08	23.00
		1	25	22.33	22.20	22.31	23.00
		1	49	22.11	22.01	22.04	23.00
		25	0	21.04	20.90	21.00	22.00



		25	13	21.09	20.98	21.08	22.00	
		25	25	21.08	20.98	21.01	22.00	
		50	0	21.03	20.95	21.04	22.00	
	64QAM		1	0	21.01	20.82	20.88	22.00
			1	25	21.23	21.04	21.16	22.00
			1	49	20.92	20.82	20.94	22.00
			25	0	20.00	19.94	19.99	21.00
			25	13	20.04	20.03	20.08	21.00
			25	25	20.04	20.01	20.03	21.00
50	0		19.99	19.95	20.01	21.00		
Bandwidth	Modulation		RB allocation	offset	Channel/Frequency(MHz)			Tune-up
					37825/2577.5	38000/2595	38175/2612.5	
15MHz	QPSK	1	0	22.26	22.24	22.30	24.00	
		1	38	22.46	22.40	22.47	24.00	
		1	74	22.24	22.26	22.26	24.00	
		36	0	21.95	21.85	21.93	23.00	
		36	18	22.03	21.92	21.98	23.00	
		36	39	22.03	21.90	21.96	23.00	
		75	0	21.98	21.90	21.98	23.00	
	16QAM		1	0	22.10	21.94	22.06	23.00
			1	38	22.31	22.17	22.29	23.00
			1	74	22.09	21.97	22.01	23.00
			36	0	21.01	20.88	20.97	22.00
			36	18	21.06	20.93	21.04	22.00
			36	39	21.06	20.94	20.98	22.00
			75	0	21.00	20.90	21.00	22.00
	64QAM		1	0	20.96	20.80	20.86	22.00
			1	38	21.21	21.01	21.14	22.00
			1	74	20.93	20.81	20.95	22.00
			36	0	19.99	19.96	20.00	21.00
			36	18	20.02	20.00	20.07	21.00
			36	39	20.02	19.97	20.00	21.00
			75	0	19.96	19.90	19.97	21.00
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up	
				37850/2580	38000/2595	38150/2610		
20MHz	QPSK	1	0	22.23	22.20	22.27	24.00	
		1	50	22.45	22.36	22.45	24.00	
		1	99	22.22	22.25	22.23	24.00	
		50	0	21.92	21.80	21.89	23.00	
		50	25	22.01	21.88	21.95	23.00	
		50	50	22.00	21.85	21.92	23.00	
		100	0	21.95	21.85	21.94	23.00	
	16QAM	1	0	22.07	21.90	22.01	23.00	



		1	50	22.28	22.15	22.25	23.00
		1	99	22.06	21.94	21.99	23.00
		50	0	20.98	20.84	20.94	22.00
		50	25	21.03	20.91	21.01	22.00
		50	50	21.03	20.89	20.94	22.00
		100	0	20.98	20.86	20.97	22.00
		100	25	21.03	20.91	21.01	22.00
	64QAM	1	0	20.94	20.76	20.81	22.00
		1	50	21.17	20.99	21.10	22.00
		1	99	20.87	20.75	20.89	22.00
		50	0	19.94	19.88	19.93	21.00
		50	25	19.98	19.96	20.01	21.00
		50	50	19.99	19.92	19.96	21.00
		100	0	19.94	19.86	19.94	21.00

LTE Band38							
DSI4				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				37775/2572.5	38000/2595	38225/2617.5	
5MHz	QPSK	1	0	23.05	23.09	23.09	24.50
		1	13	23.25	23.22	23.26	24.50
		1	24	23.05	23.05	23.07	24.50
		12	0	22.14	22.12	22.12	23.50
		12	6	22.23	22.19	22.18	23.50
		12	13	22.24	22.17	22.15	23.50
		25	0	22.16	22.19	22.20	23.50
	16QAM	1	0	22.28	22.22	22.26	23.50
		1	13	22.49	22.44	22.48	23.50
		1	24	22.28	22.27	22.21	23.50
		12	0	21.21	21.13	21.16	22.50
		12	6	21.27	21.22	21.25	22.50
		12	13	21.25	21.21	21.17	22.50
		25	0	21.20	21.20	21.20	22.50
	64QAM	1	0	21.19	21.11	21.06	22.50
		1	13	21.40	21.37	21.33	22.50
		1	24	21.13	21.09	21.11	22.50
		12	0	20.17	20.13	20.19	21.50
		12	6	20.22	20.19	20.25	21.50
		12	13	20.21	20.18	20.19	21.50
		25	0	20.16	20.17	20.17	21.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
10MHz	QPSK	1	0	37800/2575	38000/2595	38200/2615	24.50
		1	25	23.07	23.10	23.12	24.50



		1	49	23.07	23.09	23.10	24.50	
		25	0	22.17	22.17	22.16	23.50	
		25	13	22.26	22.24	22.22	23.50	
		25	25	22.26	22.21	22.20	23.50	
		50	0	22.20	22.21	22.24	23.50	
		16QAM	1	0	22.32	22.25	22.28	23.50
			1	25	22.53	22.48	22.51	23.50
	1		49	22.31	22.29	22.24	23.50	
	25		0	21.24	21.18	21.20	22.50	
	25		13	21.29	21.26	21.28	22.50	
	25		25	21.28	21.26	21.21	22.50	
	50		0	21.23	21.25	21.24	22.50	
	64QAM	1	0	21.21	21.10	21.08	22.50	
		1	25	21.43	21.37	21.36	22.50	
		1	49	21.12	21.11	21.14	22.50	
		25	0	20.20	20.18	20.19	21.50	
		25	13	20.24	20.23	20.28	21.50	
		25	25	20.24	20.23	20.23	21.50	
		50	0	20.19	20.22	20.21	21.50	
	Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
					37825/2577.5	38000/2595	38175/2612.5	
15MHz	QPSK	1	0	23.06	23.06	23.10	24.50	
		1	38	23.26	23.26	23.27	24.50	
		1	74	23.04	23.04	23.06	24.50	
		36	0	22.15	22.13	22.13	23.50	
		36	18	22.23	22.19	22.18	23.50	
		36	39	22.23	22.18	22.16	23.50	
		75	0	22.18	22.17	22.19	23.50	
	16QAM	1	0	22.30	22.23	22.26	23.50	
		1	38	22.51	22.45	22.49	23.50	
		1	74	22.29	22.25	22.21	23.50	
		36	0	21.21	21.16	21.17	22.50	
		36	18	21.26	21.21	21.24	22.50	
		36	39	21.26	21.22	21.18	22.50	
		75	0	21.20	21.20	21.20	22.50	
	64QAM	1	0	21.16	21.08	21.06	22.50	
		1	38	21.41	21.34	21.34	22.50	
		1	74	21.13	21.10	21.15	22.50	
		36	0	20.19	20.20	20.20	21.50	
		36	18	20.22	20.20	20.27	21.50	
		36	39	20.22	20.19	20.20	21.50	
		75	0	20.16	20.17	20.17	21.50	



Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				37850/2580	38000/2595	38150/2610	
20MHz	QPSK	1	0	23.03	23.02	23.07	24.50
		1	50	23.25	23.22	23.25	24.50
		1	99	23.02	23.03	23.03	24.50
		50	0	22.12	22.08	22.09	23.50
		50	25	22.21	22.15	22.15	23.50
		50	50	22.20	22.13	22.12	23.50
		100	0	22.15	22.12	22.14	23.50
	16QAM	1	0	22.27	22.19	22.21	23.50
		1	50	22.48	22.43	22.45	23.50
		1	99	22.26	22.22	22.19	23.50
		50	0	21.18	21.12	21.14	22.50
		50	25	21.23	21.19	21.21	22.50
		50	50	21.23	21.17	21.14	22.50
		100	0	21.18	21.16	21.17	22.50
	64QAM	1	0	21.14	21.04	21.01	22.50
		1	50	21.37	21.32	21.30	22.50
		1	99	21.07	21.04	21.09	22.50
		50	0	20.14	20.12	20.13	21.50
		50	25	20.18	20.16	20.21	21.50
		50	50	20.19	20.14	20.16	21.50
		100	0	20.14	20.13	20.14	21.50

LTE Band41									
Full Power&DSI2-Div Ant				Maximum Output Power (dBm)					Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)					
				39675/2498.5	40148/2545.8	40620/2593	41093/2640.3	41565/2687.5	
5MHz	QPSK	1	0	23.29	23.20	23.04	23.11	23.15	25.00
		1	13	23.50	23.39	23.31	23.34	23.45	25.00
		1	24	23.29	23.07	23.05	23.10	23.19	25.00
		12	0	22.43	22.33	22.11	22.21	22.41	24.00
		12	6	22.51	22.39	22.21	22.29	22.47	24.00
		12	13	22.39	22.31	22.17	22.26	22.43	24.00
		25	0	22.46	22.34	22.17	22.29	22.48	24.00
	16QAM	1	0	22.49	22.40	22.19	22.24	22.43	24.00
		1	13	22.72	22.64	22.48	22.51	22.73	24.00
		1	24	22.46	22.34	22.23	22.36	22.45	24.00
		12	0	21.41	21.31	21.12	21.18	21.45	23.00
		12	6	21.54	21.42	21.22	21.32	21.54	23.00
		12	13	21.48	21.34	21.20	21.30	21.47	23.00
		25	0	21.56	21.36	21.14	21.30	21.47	23.00



Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)					Tune-up	
				39700/2501	40160/2547	40620/2593	41080/2639	41540/2685		
	64QAM	1	0	21.35	21.25	21.07	21.14	21.28	23.00	
		1	13	21.65	21.55	21.35	21.44	21.61	23.00	
		1	24	21.35	21.18	21.04	21.17	21.30	23.00	
		12	0	20.42	20.31	20.17	20.21	20.42	22.00	
		12	6	20.52	20.37	20.21	20.32	20.47	22.00	
		12	13	20.46	20.32	20.19	20.30	20.45	22.00	
		25	0	20.43	20.34	20.15	20.26	20.41	22.00	
10MHz	QPSK	1	0	23.31	23.21	23.07	23.12	23.18	25.00	
		1	25	23.53	23.44	23.35	23.39	23.49	25.00	
		1	49	23.31	23.11	23.08	23.14	23.22	25.00	
		25	0	22.46	22.38	22.15	22.26	22.45	24.00	
		25	13	22.54	22.44	22.25	22.34	22.51	24.00	
		25	25	22.41	22.35	22.22	22.30	22.48	24.00	
		50	0	22.50	22.36	22.21	22.31	22.52	24.00	
	16QAM	1	0	22.53	22.43	22.21	22.27	22.45	24.00	
		1	25	22.76	22.68	22.51	22.55	22.76	24.00	
		1	49	22.49	22.36	22.26	22.38	22.48	24.00	
		25	0	21.44	21.36	21.16	21.23	21.49	23.00	
		25	13	21.56	21.46	21.25	21.36	21.57	23.00	
		25	25	21.51	21.39	21.24	21.35	21.51	23.00	
		50	0	21.59	21.41	21.18	21.35	21.51	23.00	
	64QAM	1	0	21.37	21.24	21.09	21.13	21.30	23.00	
		1	25	21.68	21.55	21.38	21.44	21.64	23.00	
		1	49	21.34	21.20	21.07	21.19	21.33	23.00	
		25	0	20.45	20.36	20.17	20.26	20.42	22.00	
		25	13	20.54	20.41	20.24	20.36	20.50	22.00	
		25	25	20.49	20.37	20.23	20.35	20.49	22.00	
		50	0	20.46	20.39	20.19	20.31	20.45	22.00	
	Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)					Tune-up
					39725/2503.5	40173/2548.3	40620/2593	41068/2637.8	41515/2682.5	
	15MHz	QPSK	1	0	23.30	23.17	23.05	23.08	23.16	25.00
			1	38	23.51	23.43	23.32	23.38	23.46	25.00
			1	74	23.28	23.06	23.04	23.09	23.18	25.00
			36	0	22.44	22.34	22.12	22.22	22.42	24.00
			36	18	22.51	22.39	22.21	22.29	22.47	24.00
36			39	22.38	22.32	22.18	22.27	22.44	24.00	
75			0	22.48	22.32	22.16	22.27	22.47	24.00	
16QAM		1	0	22.51	22.41	22.19	22.25	22.43	24.00	
		1	38	22.74	22.65	22.49	22.52	22.74	24.00	
		1	74	22.47	22.32	22.23	22.34	22.45	24.00	
		36	0	21.41	21.34	21.13	21.21	21.46	23.00	



Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)					Tune-up	
				39750/2506	40185/2549.5	40620/2593	41055/2636.5	41490/2680		
20MHz	64QAM	36	18	21.53	21.41	21.21	21.31	21.53	23.00	
		36	39	21.49	21.35	21.21	21.31	21.48	23.00	
		75	0	21.56	21.36	21.14	21.30	21.47	23.00	
		1	0	21.32	21.22	21.07	21.11	21.28	23.00	
		1	38	21.66	21.52	21.36	21.41	21.62	23.00	
		1	74	21.35	21.19	21.08	21.18	21.34	23.00	
		36	0	20.44	20.38	20.18	20.28	20.43	22.00	
		36	18	20.52	20.38	20.23	20.33	20.49	22.00	
		36	39	20.47	20.33	20.20	20.31	20.46	22.00	
	75	0	20.43	20.34	20.15	20.26	20.41	22.00		
	20MHz	QPSK	1	0	23.27	23.13	23.02	23.04	23.13	25.00
			1	50	23.50	23.39	23.30	23.34	23.44	25.00
			1	99	23.26	23.05	23.01	23.08	23.15	25.00
			50	0	22.41	22.29	22.08	22.17	22.38	24.00
			50	25	22.49	22.35	22.18	22.25	22.44	24.00
			50	50	22.35	22.27	22.14	22.22	22.40	24.00
			100	0	22.45	22.27	22.12	22.22	22.43	24.00
		16QAM	1	0	22.48	22.37	22.14	22.21	22.38	24.00
1			50	22.71	22.63	22.45	22.50	22.70	24.00	
1			99	22.44	22.29	22.21	22.31	22.43	24.00	
50			0	21.38	21.30	21.10	21.17	21.43	23.00	
50			25	21.50	21.39	21.18	21.29	21.50	23.00	
50			50	21.46	21.30	21.17	21.26	21.44	23.00	
100			0	21.54	21.32	21.11	21.26	21.44	23.00	
64QAM		1	0	21.30	21.18	21.02	21.07	21.23	23.00	
		1	50	21.62	21.50	21.32	21.39	21.58	23.00	
		1	99	21.29	21.13	21.02	21.12	21.28	23.00	
		50	0	20.39	20.30	20.11	20.20	20.36	22.00	
	50	25	20.48	20.34	20.17	20.29	20.43	22.00		
	50	50	20.44	20.28	20.16	20.26	20.42	22.00		
	100	0	20.41	20.30	20.12	20.22	20.38	22.00		

LTE Band41									
DSI1-Div Ant				Maximum Output Power (dBm)					Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)					
				39675/2498.5	40148/2545.8	40620/2593	41093/2640.3	41565/2687.5	
5MHz	QPSK	1	0	22.80	22.72	22.55	22.59	22.69	24.00
		1	13	23.03	22.93	22.76	22.84	23.01	24.00
		1	24	22.80	22.64	22.55	22.62	22.78	24.00
		12	0	22.39	22.34	22.09	22.19	22.42	23.00
		12	6	22.49	22.39	22.18	22.29	22.45	23.00



		12	13	22.41	22.27	22.14	22.25	22.42	23.00	
		25	0	22.49	22.36	22.14	22.29	22.46	23.00	
	16QAM		1	0	22.43	22.38	22.19	22.20	22.40	23.00
			1	13	22.70	22.63	22.46	22.48	22.71	23.00
		1	24	22.45	22.31	22.19	22.32	22.42	23.00	
		12	0	21.40	21.33	21.11	21.14	21.41	22.00	
		12	6	21.53	21.39	21.21	21.31	21.51	22.00	
		12	13	21.45	21.32	21.20	21.27	21.45	22.00	
		25	0	21.39	21.36	21.14	21.29	21.45	22.00	
		64QAM		1	0	21.37	21.26	21.05	21.05	21.30
	1			13	21.61	21.54	21.33	21.43	21.59	22.00
	1		24	21.32	21.19	21.05	21.16	21.30	22.00	
	12		0	20.42	20.33	20.15	20.20	20.43	21.00	
	12		6	20.51	20.35	20.20	20.30	20.46	21.00	
	12		13	20.47	20.32	20.17	20.27	20.42	21.00	
	25		0	20.41	20.31	20.16	20.25	20.41	21.00	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)					Tune-up	
				39700/2501	40160/2547	40620/2593	41080/2639	41540/2685		
10MHz	QPSK	1	0	22.82	22.73	22.58	22.60	22.72	24.00	
		1	25	23.06	22.98	22.80	22.89	23.05	24.00	
		1	49	22.82	22.68	22.58	22.66	22.81	24.00	
		25	0	22.42	22.39	22.13	22.24	22.46	23.00	
		25	13	22.52	22.44	22.22	22.34	22.49	23.00	
		25	25	22.43	22.31	22.19	22.29	22.47	23.00	
		50	0	22.53	22.38	22.18	22.31	22.50	23.00	
	16QAM		1	0	22.47	22.41	22.21	22.23	22.42	23.00
			1	25	22.74	22.67	22.49	22.52	22.74	23.00
		1	49	22.48	22.33	22.22	22.34	22.45	23.00	
		25	0	21.43	21.38	21.15	21.19	21.45	22.00	
		25	13	21.55	21.43	21.24	21.35	21.54	22.00	
		25	25	21.48	21.37	21.24	21.32	21.49	22.00	
		50	0	21.42	21.41	21.18	21.34	21.49	22.00	
	64QAM		1	0	21.39	21.25	21.07	21.04	21.32	22.00
			1	25	21.64	21.54	21.36	21.43	21.62	22.00
		1	49	21.31	21.21	21.08	21.18	21.33	22.00	
		25	0	20.45	20.38	20.15	20.25	20.43	21.00	
		25	13	20.53	20.39	20.23	20.34	20.49	21.00	
		25	25	20.50	20.37	20.21	20.32	20.46	21.00	
		50	0	20.44	20.36	20.20	20.30	20.45	21.00	
	Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)					Tune-up
					39725/2503.5	40173/2548.3	40620/2593	41068/2637.8	41515/2682.5	
	15MHz	QPSK	1	0	22.81	22.69	22.56	22.56	22.70	24.00
1			38	23.04	22.97	22.77	22.88	23.02	24.00	





		1	74	22.79	22.63	22.54	22.61	22.77	24.00	
		36	0	22.40	22.35	22.10	22.20	22.43	23.00	
		36	18	22.49	22.39	22.18	22.29	22.45	23.00	
		36	39	22.40	22.28	22.15	22.26	22.43	23.00	
		75	0	22.51	22.34	22.13	22.27	22.45	23.00	
		16QAM	1	0	22.45	22.39	22.19	22.21	22.40	23.00
		1	38	22.72	22.64	22.47	22.49	22.72	23.00	
	1	74	22.46	22.29	22.19	22.30	22.42	23.00		
	36	0	21.40	21.36	21.12	21.17	21.42	22.00		
	36	18	21.52	21.38	21.20	21.30	21.50	22.00		
	36	39	21.46	21.33	21.21	21.28	21.46	22.00		
	75	0	21.39	21.36	21.14	21.29	21.45	22.00		
	64QAM	1	0	21.34	21.23	21.05	21.02	21.30	22.00	
	1	38	21.62	21.51	21.34	21.40	21.60	22.00		
	1	74	21.32	21.20	21.09	21.17	21.34	22.00		
	36	0	20.44	20.40	20.16	20.27	20.44	21.00		
	36	18	20.51	20.36	20.22	20.31	20.48	21.00		
	36	39	20.48	20.33	20.18	20.28	20.43	21.00		
	75	0	20.41	20.31	20.16	20.25	20.41	21.00		
	Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)					Tune-up
					39750/2506	40185/2549.5	40620/2593	41055/2636.5	41490/2680	
20MHz	QPSK	1	0	22.78	22.65	22.53	22.52	22.67	24.00	
		1	50	23.03	22.93	22.75	22.84	23.00	24.00	
		1	99	22.77	22.62	22.51	22.60	22.74	24.00	
		50	0	22.37	22.30	22.06	22.15	22.39	23.00	
		50	25	22.47	22.35	22.15	22.25	22.42	23.00	
		50	50	22.37	22.23	22.11	22.21	22.39	23.00	
		100	0	22.48	22.29	22.09	22.22	22.41	23.00	
	16QAM	1	0	22.42	22.35	22.14	22.17	22.35	23.00	
		1	50	22.69	22.62	22.43	22.47	22.68	23.00	
		1	99	22.43	22.26	22.17	22.27	22.40	23.00	
		50	0	21.37	21.32	21.09	21.13	21.39	22.00	
		50	25	21.49	21.36	21.17	21.28	21.47	22.00	
		50	50	21.43	21.28	21.17	21.23	21.42	22.00	
		100	0	21.37	21.32	21.11	21.25	21.42	22.00	
	64QAM	1	0	21.32	21.19	21.00	20.98	21.25	22.00	
		1	50	21.58	21.49	21.30	21.38	21.56	22.00	
		1	99	21.26	21.14	21.03	21.11	21.28	22.00	
		50	0	20.39	20.32	20.09	20.19	20.37	21.00	
		50	25	20.47	20.32	20.16	20.27	20.42	21.00	
		50	50	20.45	20.28	20.14	20.23	20.39	21.00	
		100	0	20.39	20.27	20.13	20.21	20.38	21.00	



LTE Band41									
DSI4-Div Ant				Maximum Output Power (dBm)					Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)					
				39675/2498.5	40148/2545.8	40620/2593	41093/2640.3	41565/2687.5	
5MHz	QPSK	1	0	22.30	22.25	22.05	22.10	22.20	23.50
		1	13	22.57	22.45	22.27	22.37	22.55	23.50
		1	24	22.30	22.14	22.05	22.13	22.30	23.50
		12	0	22.39	22.34	22.10	22.21	22.38	23.50
		12	6	22.48	22.39	22.19	22.30	22.47	23.50
		12	13	22.41	22.34	22.15	22.26	22.42	23.50
		25	0	22.50	22.31	22.15	22.29	22.48	23.50
	16QAM	1	0	22.44	22.35	22.20	22.21	22.41	23.50
		1	13	22.70	22.62	22.52	22.48	22.72	23.50
		1	24	22.44	22.34	22.21	22.34	22.42	23.50
		12	0	21.38	21.33	21.09	21.15	21.43	22.50
		12	6	21.51	21.39	21.22	21.30	21.50	22.50
		12	13	21.46	21.32	21.17	21.27	21.46	22.50
		25	0	21.41	21.32	21.15	21.27	21.44	22.50
	64QAM	1	0	21.37	21.26	21.03	21.11	21.28	22.50
		1	13	21.62	21.54	21.33	21.44	21.60	22.50
		1	24	21.36	21.17	21.05	21.18	21.31	22.50
		12	0	20.41	20.31	20.17	20.18	20.43	21.50
		12	6	20.52	20.37	20.22	20.31	20.48	21.50
		12	13	20.48	20.30	20.19	20.27	20.42	21.50
		25	0	20.44	20.34	20.15	20.27	20.39	21.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)					Tune-up
				39700/2501	40160/2547	40620/2593	41080/2639	41540/2685	
10MHz	QPSK	1	0	22.32	22.26	22.08	22.11	22.23	23.50
		1	25	22.60	22.50	22.31	22.42	22.59	23.50
		1	49	22.32	22.18	22.08	22.17	22.33	23.50
		25	0	22.42	22.39	22.14	22.26	22.42	23.50
		25	13	22.51	22.44	22.23	22.35	22.51	23.50
		25	25	22.43	22.38	22.20	22.30	22.47	23.50
		50	0	22.54	22.33	22.19	22.31	22.52	23.50
	16QAM	1	0	22.48	22.38	22.22	22.24	22.43	23.50
		1	25	22.74	22.66	22.55	22.52	22.75	23.50
		1	49	22.47	22.36	22.24	22.36	22.45	23.50
		25	0	21.41	21.38	21.13	21.20	21.47	22.50
		25	13	21.53	21.43	21.25	21.34	21.53	22.50
		25	25	21.49	21.37	21.21	21.32	21.50	22.50
		50	0	21.44	21.37	21.19	21.32	21.48	22.50
64QAM	1	0	21.39	21.25	21.05	21.10	21.30	22.50	



Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)					Tune-up	
				39725/2503.5	40173/2548.3	40620/2593	41068/2637.8	41515/2682.5		
		1	25	21.65	21.54	21.36	21.44	21.63	22.50	
		1	49	21.35	21.19	21.08	21.20	21.34	22.50	
		25	0	20.44	20.36	20.17	20.23	20.43	21.50	
		25	13	20.54	20.41	20.25	20.35	20.51	21.50	
		25	25	20.51	20.35	20.23	20.32	20.46	21.50	
		50	0	20.47	20.39	20.19	20.32	20.43	21.50	
15MHz	QPSK	1	0	22.31	22.22	22.06	22.07	22.21	23.50	
		1	38	22.58	22.49	22.28	22.41	22.56	23.50	
		1	74	22.29	22.13	22.04	22.12	22.29	23.50	
		36	0	22.40	22.35	22.11	22.22	22.39	23.50	
		36	18	22.48	22.39	22.19	22.30	22.47	23.50	
		36	39	22.40	22.35	22.16	22.27	22.43	23.50	
		75	0	22.52	22.29	22.14	22.27	22.47	23.50	
	16QAM	1	0	22.46	22.36	22.20	22.22	22.41	23.50	
		1	38	22.72	22.63	22.53	22.49	22.73	23.50	
		1	74	22.45	22.32	22.21	22.32	22.42	23.50	
		36	0	21.38	21.36	21.10	21.18	21.44	22.50	
		36	18	21.50	21.38	21.21	21.29	21.49	22.50	
		36	39	21.47	21.33	21.18	21.28	21.47	22.50	
		75	0	21.41	21.32	21.15	21.27	21.44	22.50	
	64QAM	1	0	21.34	21.23	21.03	21.08	21.28	22.50	
		1	38	21.63	21.51	21.34	21.41	21.61	22.50	
		1	74	21.36	21.18	21.09	21.19	21.35	22.50	
		36	0	20.43	20.38	20.18	20.25	20.44	21.50	
		36	18	20.52	20.38	20.24	20.32	20.50	21.50	
		36	39	20.49	20.31	20.20	20.28	20.43	21.50	
		75	0	20.44	20.34	20.15	20.27	20.39	21.50	
	Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)					Tune-up
					39750/2506	40185/2549.5	40620/2593	41055/2636.5	41490/2680	
	20MHz	QPSK	1	0	22.28	22.18	22.03	22.03	22.18	23.50
1			50	22.57	22.45	22.26	22.37	22.54	23.50	
1			99	22.27	22.12	22.01	22.11	22.26	23.50	
50			0	22.37	22.30	22.07	22.17	22.35	23.50	
50			25	22.46	22.35	22.16	22.26	22.44	23.50	
50			50	22.37	22.30	22.12	22.22	22.39	23.50	
100			0	22.49	22.24	22.10	22.22	22.43	23.50	
16QAM		1	0	22.43	22.32	22.15	22.18	22.36	23.50	
		1	50	22.69	22.61	22.49	22.47	22.69	23.50	
		1	99	22.42	22.29	22.19	22.29	22.40	23.50	
		50	0	21.35	21.32	21.07	21.14	21.41	22.50	
		50	25	21.47	21.36	21.18	21.27	21.46	22.50	



64QAM	50	50	21.44	21.28	21.14	21.23	21.43	22.50
	100	0	21.39	21.28	21.12	21.23	21.41	22.50
	1	0	21.32	21.19	21.02	21.04	21.23	22.50
	1	50	21.59	21.49	21.30	21.39	21.57	22.50
	1	99	21.30	21.12	21.03	21.13	21.29	22.50
	50	0	20.38	20.30	20.11	20.17	20.37	21.50
	50	25	20.48	20.34	20.18	20.28	20.44	21.50
	50	50	20.46	20.26	20.16	20.23	20.39	21.50
	100	0	20.42	20.30	20.12	20.23	20.36	21.50

LTE Band66							
Full Power&DSI2				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				131979/1710.7	132322/1745	132665/1779.3	
1.4MHz	QPSK	1	0	23.33	23.39	23.33	25.00
		1	2	23.57	23.52	23.39	25.00
		1	5	23.25	23.17	23.13	25.00
		3	0	23.39	23.52	23.44	25.00
		3	2	23.45	23.50	23.45	25.00
		3	3	23.40	23.36	23.27	25.00
		6	0	22.42	22.48	22.45	24.00
	16QAM	1	0	22.77	22.75	22.73	24.00
		1	2	22.95	22.86	22.77	24.00
		1	5	22.61	22.55	22.49	24.00
		3	0	22.38	22.50	22.44	24.00
		3	2	22.51	22.50	22.48	24.00
		3	3	22.42	22.41	22.26	24.00
		6	0	21.47	21.53	21.45	23.00
	64QAM	1	0	21.70	21.57	21.51	23.00
		1	2	21.82	21.86	21.74	23.00
		1	5	21.49	21.56	21.46	23.00
		3	0	21.36	21.46	21.40	23.00
		3	2	21.49	21.48	21.43	23.00
		3	3	21.42	21.37	21.24	23.00
		6	0	20.45	20.52	20.43	22.00
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
3MHz	QPSK	1	0	23.35	23.43	23.36	24.50
		1	7	23.55	23.55	23.43	24.50
		1	14	23.28	23.22	23.17	24.50
		8	0	22.49	22.64	22.57	23.50
		8	4	22.57	22.60	22.57	23.50
		8	7	22.50	22.47	22.37	23.50



	16QAM	15	0	22.42	22.52	22.48	23.50
		1	0	22.77	22.77	22.76	23.50
		1	7	22.95	22.86	22.81	23.50
		1	14	22.63	22.59	22.52	23.50
		8	0	21.49	21.63	21.56	22.50
		8	4	21.62	21.63	21.60	22.50
		8	7	21.52	21.53	21.39	22.50
		15	0	21.50	21.57	21.48	22.50
	64QAM	1	0	21.73	21.59	21.54	22.50
		1	7	21.85	21.86	21.76	22.50
		1	14	21.51	21.55	21.49	22.50
		8	0	20.47	20.59	20.52	21.50
		8	4	20.60	20.61	20.55	21.50
		8	7	20.52	20.49	20.37	21.50
15	0	20.48	20.56	20.46	21.50		
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				131997/1712.5	132322/1745	132647/1777.5	
5MHz	QPSK	1	0	23.32	23.41	23.32	24.50
		1	13	23.53	23.51	23.40	24.50
		1	24	23.25	23.17	23.13	24.50
		12	0	22.46	22.59	22.53	23.50
		12	6	22.55	22.56	22.52	23.50
		12	13	22.48	22.45	22.33	23.50
		25	0	22.42	22.51	22.46	23.50
	16QAM	1	0	22.77	22.73	22.73	23.50
		1	13	22.95	22.84	22.78	23.50
		1	24	22.60	22.57	22.48	23.50
		12	0	21.47	21.59	21.53	22.50
		12	6	21.59	21.58	21.56	22.50
		12	13	21.49	21.48	21.35	22.50
		25	0	21.48	21.53	21.43	22.50
	64QAM	1	0	21.70	21.59	21.51	22.50
		1	13	21.82	21.88	21.73	22.50
		1	24	21.52	21.53	21.45	22.50
		12	0	20.45	20.55	20.53	21.50
		12	6	20.57	20.56	20.51	21.50
		12	13	20.49	20.44	20.33	21.50
		25	0	20.46	20.52	20.41	21.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				132022/1715	132322/1745	132622/1775	
10MHz	QPSK	1	0	23.34	23.42	23.35	24.50
		1	25	23.56	23.56	23.44	24.50
		1	49	23.27	23.21	23.16	24.50



		25	0	22.49	22.64	22.57	23.50	
		25	13	22.58	22.61	22.56	23.50	
		25	25	22.50	22.49	22.38	23.50	
		50	0	22.46	22.53	22.50	23.50	
	16QAM	1	0	22.81	22.76	22.75	23.50	
		1	25	22.99	22.88	22.81	23.50	
		1	49	22.63	22.59	22.51	23.50	
		25	0	21.50	21.64	21.57	22.50	
		25	13	21.61	21.62	21.59	22.50	
		25	25	21.52	21.53	21.39	22.50	
		50	0	21.51	21.58	21.47	22.50	
		64QAM	1	0	21.72	21.58	21.53	22.50
	1		25	21.85	21.88	21.76	22.50	
	1		49	21.51	21.55	21.48	22.50	
	25		0	20.48	20.60	20.53	21.50	
	25		13	20.59	20.60	20.54	21.50	
	25		25	20.52	20.49	20.37	21.50	
	50		0	20.49	20.57	20.45	21.50	
	Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
					132047/1717.5	132322/1745	132597/1772.5	
	15MHz	QPSK	1	0	23.33	23.38	23.33	24.50
1			38	23.54	23.55	23.41	24.50	
1			74	23.24	23.16	23.12	24.50	
36			0	22.47	22.60	22.54	23.50	
36			18	22.55	22.56	22.52	23.50	
36			39	22.47	22.46	22.34	23.50	
75			0	22.44	22.49	22.45	23.50	
16QAM		1	0	22.79	22.74	22.73	23.50	
		1	38	22.97	22.85	22.79	23.50	
		1	74	22.61	22.55	22.48	23.50	
		36	0	21.47	21.62	21.54	22.50	
		36	18	21.58	21.57	21.55	22.50	
		36	39	21.50	21.49	21.36	22.50	
		75	0	21.48	21.53	21.43	22.50	
64QAM		1	0	21.67	21.56	21.51	22.50	
		1	38	21.83	21.85	21.74	22.50	
		1	74	21.52	21.54	21.49	22.50	
		36	0	20.47	20.62	20.54	21.50	
		36	18	20.57	20.57	20.53	21.50	
		36	39	20.50	20.45	20.34	21.50	
		75	0	20.46	20.52	20.41	21.50	



Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				132072/1720	132322/1745	132572/1770	
20MHz	QPSK	1	0	23.30	23.34	23.30	24.50
		1	50	23.53	23.51	23.39	24.50
		1	99	23.22	23.15	23.09	24.50
		50	0	22.44	22.55	22.50	23.50
		50	25	22.53	22.52	22.49	23.50
		50	50	22.44	22.41	22.30	23.50
		100	0	22.41	22.44	22.41	23.50
	16QAM	1	0	22.76	22.70	22.68	23.50
		1	50	22.94	22.83	22.75	23.50
		1	99	22.58	22.52	22.46	23.50
		50	0	21.44	21.58	21.51	22.50
		50	25	21.55	21.55	21.52	22.50
		50	50	21.47	21.44	21.32	22.50
		100	0	21.46	21.49	21.40	22.50
	64QAM	1	0	21.65	21.52	21.46	22.50
		1	50	21.79	21.83	21.70	22.50
		1	99	21.46	21.48	21.43	22.50
		50	0	20.42	20.54	20.47	21.50
		50	25	20.53	20.53	20.47	21.50
		50	50	20.47	20.40	20.30	21.50
		100	0	20.44	20.48	20.38	21.50

LTE Band66							
DSI1				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				131979/1710.7	132322/1745	132665/1779.3	
1.4MHz	QPSK	1	0	17.44	17.58	17.42	18.50
		1	2	17.60	17.70	17.61	18.50
		1	5	17.40	17.31	17.30	18.50
		3	0	17.49	17.68	17.58	18.50
		3	2	17.60	17.63	17.55	18.50
		3	3	17.51	17.54	17.42	18.50
		6	0	17.50	17.67	17.56	18.50
	16QAM	1	0	18.02	18.03	18.12	18.50
		1	2	18.23	18.20	18.29	18.50
		1	5	17.90	17.93	17.92	18.50
		3	0	17.72	17.65	17.73	18.50
		3	2	17.68	17.63	17.71	18.50
		3	3	17.55	17.56	17.59	18.50
		6	0	17.59	17.61	17.64	18.50



Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up	
				131987/1711.5	132322/1745	132657/1778.5		
	64QAM	1	0	17.93	17.95	17.98	18.50	
		1	2	18.14	18.14	18.16	18.50	
		1	5	17.82	17.74	17.73	18.50	
		3	0	17.76	17.67	17.83	18.50	
		3	2	17.73	17.67	17.75	18.50	
		3	3	17.55	17.56	17.59	18.50	
		6	0	17.58	17.60	17.63	18.50	
3MHz	QPSK	1	0	17.45	17.55	17.43	18.50	
		1	7	17.61	17.74	17.62	18.50	
		1	14	17.39	17.30	17.29	18.50	
		8	0	17.50	17.69	17.59	18.50	
		8	4	17.60	17.63	17.55	18.50	
		8	7	17.50	17.55	17.43	18.50	
		15	0	17.52	17.65	17.55	18.50	
	16QAM	1	0	18.04	18.04	18.12	18.50	
		1	7	18.25	18.21	18.30	18.50	
		1	14	17.91	17.91	17.92	18.50	
		8	0	17.72	17.68	17.74	18.50	
		8	4	17.67	17.62	17.70	18.50	
		8	7	17.56	17.57	17.60	18.50	
		15	0	17.59	17.61	17.64	18.50	
	64QAM	1	0	17.90	17.92	17.98	18.50	
		1	7	18.15	18.11	18.17	18.50	
		1	14	17.82	17.75	17.77	18.50	
		8	0	17.78	17.74	17.84	18.50	
		8	4	17.73	17.68	17.77	18.50	
		8	7	17.56	17.57	17.60	18.50	
		15	0	17.58	17.60	17.63	18.50	
	Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
					131997/1712.5	132322/1745	132647/1777.5	
	5MHz	QPSK	1	0	17.42	17.51	17.40	18.50
			1	13	17.60	17.70	17.60	18.50
			1	24	17.37	17.29	17.26	18.50
			12	0	17.47	17.64	17.55	18.50
			12	6	17.58	17.59	17.52	18.50
12			13	17.47	17.50	17.39	18.50	
25			0	17.49	17.60	17.51	18.50	
16QAM		1	0	18.01	18.00	18.07	18.50	
		1	13	18.22	18.19	18.26	18.50	
		1	24	17.88	17.88	17.90	18.50	
		12	0	17.69	17.64	17.71	18.50	





		12	6	17.64	17.60	17.67	18.50
		12	13	17.53	17.52	17.56	18.50
		25	0	17.57	17.57	17.61	18.50
	64QAM	1	0	17.88	17.88	17.93	18.50
		1	13	18.11	18.09	18.13	18.50
		1	24	17.76	17.69	17.71	18.50
		12	0	17.73	17.66	17.77	18.50
		12	6	17.69	17.64	17.71	18.50
		12	13	17.53	17.52	17.56	18.50
		25	0	17.56	17.56	17.60	18.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				132022/1715	132322/1745	132622/1775	
10MHz	QPSK	1	0	17.44	17.52	17.43	18.50
		1	25	17.63	17.75	17.64	18.50
		1	49	17.39	17.33	17.29	18.50
		25	0	17.50	17.69	17.59	18.50
		25	13	17.61	17.64	17.56	18.50
		25	25	17.49	17.54	17.44	18.50
		50	0	17.53	17.62	17.55	18.50
	16QAM	1	0	18.05	18.03	18.09	18.50
		1	25	18.26	18.23	18.29	18.50
		1	49	17.91	17.90	17.93	18.50
		25	0	17.72	17.69	17.75	18.50
		25	13	17.66	17.64	17.70	18.50
		25	25	17.56	17.57	17.60	18.50
		50	0	17.60	17.62	17.65	18.50
	64QAM	1	0	17.90	17.87	17.95	18.50
		1	25	18.14	18.09	18.16	18.50
		1	49	17.75	17.71	17.74	18.50
		25	0	17.76	17.71	17.77	18.50
		25	13	17.71	17.68	17.74	18.50
		25	25	17.56	17.57	17.60	18.50
		50	0	17.59	17.61	17.64	18.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				132047/1717.5	132322/1745	132597/1772.5	
15MHz	QPSK	1	0	17.43	17.48	17.41	18.50
		1	38	17.61	17.74	17.61	18.50
		1	74	17.36	17.28	17.25	18.50
		36	0	17.48	17.65	17.56	18.50
		36	18	17.58	17.59	17.52	18.50
		36	39	17.46	17.51	17.40	18.50
		75	0	17.51	17.58	17.50	18.50
	16QAM	1	0	18.03	18.01	18.07	18.50



Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				132072/1720	132322/1745	132572/1770	
20MHz	64QAM	1	38	18.24	18.20	18.27	18.50
		1	74	17.89	17.86	17.90	18.50
		36	0	17.69	17.67	17.72	18.50
		36	18	17.63	17.59	17.66	18.50
		36	39	17.54	17.53	17.57	18.50
		75	0	17.57	17.57	17.61	18.50
		75	0	17.56	17.56	17.60	18.50
	QPSK	1	0	17.85	17.85	17.93	18.50
		1	38	18.12	18.06	18.14	18.50
		1	74	17.76	17.70	17.75	18.50
		36	0	17.75	17.73	17.78	18.50
		36	18	17.69	17.65	17.73	18.50
		36	39	17.54	17.53	17.57	18.50
		75	0	17.56	17.56	17.60	18.50
20MHz	16QAM	1	0	17.40	17.44	17.38	18.50
		1	50	17.60	17.70	17.59	18.50
		1	99	17.34	17.27	17.22	18.50
		50	0	17.45	17.60	17.52	18.50
		50	25	17.56	17.55	17.49	18.50
		50	50	17.43	17.46	17.36	18.50
		100	0	17.48	17.53	17.46	18.50
	64QAM	1	0	18.00	17.97	18.02	18.50
		1	50	18.21	18.18	18.23	18.50
		1	99	17.86	17.83	17.88	18.50
		50	0	17.66	17.63	17.69	18.50
		50	25	17.60	17.57	17.63	18.50
		50	50	17.51	17.48	17.53	18.50
		100	0	17.55	17.53	17.58	18.50
64QAM	1	0	17.83	17.81	17.88	18.50	
	1	50	18.08	18.04	18.10	18.50	
	1	99	17.70	17.64	17.69	18.50	
	50	0	17.70	17.65	17.71	18.50	
	50	25	17.65	17.61	17.67	18.50	
	50	50	17.51	17.48	17.53	18.50	
	100	0	17.54	17.52	17.57	18.50	

LTE Band66							
DSI4				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			
				131979/1710.7	132322/1745	132665/1779.3	
1.4MHz	QPSK	1	0	19.62	19.57	19.49	20.50
		1	2	19.80	20.01	19.74	20.50



		1	5	19.50	19.53	19.42	20.50	
		3	0	19.58	19.79	19.64	20.50	
		3	2	19.66	19.76	19.71	20.50	
		3	3	19.64	19.60	19.53	20.50	
		6	0	19.56	19.69	19.61	20.50	
	16QAM	1	0	20.13	20.17	20.24	20.50	
		1	2	20.22	20.21	20.30	20.50	
		1	5	19.99	20.00	20.02	20.50	
		3	0	19.78	19.75	19.81	20.50	
		3	2	19.77	19.76	19.82	20.50	
		3	3	19.65	19.70	19.71	20.50	
		6	0	19.66	19.72	19.75	20.50	
	64QAM	1	0	20.03	19.99	20.08	20.50	
		1	2	20.24	20.16	20.26	20.50	
		1	5	19.89	19.87	19.89	20.50	
		3	0	19.83	19.78	19.84	20.50	
		3	2	19.79	19.77	19.83	20.50	
		3	3	19.64	19.69	19.70	20.50	
		6	0	19.68	19.74	19.77	20.50	
	Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
					131987/1711.5	132322/1745	132657/1778.5	
3MHz	QPSK	1	0	19.59	19.55	19.45	20.50	
		1	7	19.78	19.97	19.71	20.50	
		1	14	19.47	19.48	19.38	20.50	
		8	0	19.55	19.74	19.60	20.50	
		8	4	19.64	19.72	19.66	20.50	
		8	7	19.62	19.58	19.49	20.50	
		15	0	19.56	19.68	19.59	20.50	
	16QAM	1	0	20.13	20.13	20.21	20.50	
		1	7	20.22	20.19	20.27	20.50	
		1	14	19.96	19.98	19.98	20.50	
		8	0	19.76	19.71	19.78	20.50	
		8	4	19.74	19.71	19.78	20.50	
		8	7	19.62	19.65	19.67	20.50	
		15	0	19.64	19.68	19.70	20.50	
	64QAM	1	0	20.00	19.99	20.05	20.50	
		1	7	20.21	20.18	20.23	20.50	
		1	14	19.90	19.85	19.85	20.50	
		8	0	19.81	19.74	19.85	20.50	
		8	4	19.76	19.72	19.79	20.50	
		8	7	19.61	19.64	19.66	20.50	
		15	0	19.66	19.70	19.72	20.50	



Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
				131997/1712.5	132322/1745	132647/1777.5	
5MHz	QPSK	1	0	19.60	19.52	19.46	20.50
		1	13	19.79	20.01	19.72	20.50
		1	24	19.46	19.47	19.37	20.50
		12	0	19.56	19.75	19.61	20.50
		12	6	19.64	19.72	19.66	20.50
		12	13	19.61	19.59	19.50	20.50
		25	0	19.58	19.66	19.58	20.50
	16QAM	1	0	20.15	20.14	20.21	20.50
		1	13	20.24	20.20	20.28	20.50
		1	24	19.97	19.96	19.98	20.50
		12	0	19.76	19.74	19.79	20.50
		12	6	19.73	19.70	19.77	20.50
		12	13	19.63	19.66	19.68	20.50
		25	0	19.64	19.68	19.70	20.50
	64QAM	1	0	19.97	19.96	20.05	20.50
		1	13	20.22	20.15	20.24	20.50
		1	24	19.90	19.86	19.89	20.50
		12	0	19.83	19.81	19.86	20.50
		12	6	19.76	19.73	19.81	20.50
		12	13	19.62	19.65	19.67	20.50
		25	0	19.66	19.70	19.72	20.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
10MHz	QPSK	1	0	19.57	19.48	19.43	20.50
		1	25	19.78	19.97	19.70	20.50
		1	49	19.44	19.46	19.34	20.50
		25	0	19.53	19.70	19.57	20.50
		25	13	19.62	19.68	19.63	20.50
		25	25	19.58	19.54	19.46	20.50
		50	0	19.55	19.61	19.54	20.50
	16QAM	1	0	20.12	20.10	20.16	20.50
		1	25	20.21	20.18	20.24	20.50
		1	49	19.94	19.93	19.96	20.50
		25	0	19.73	19.70	19.76	20.50
		25	13	19.70	19.68	19.74	20.50
		25	25	19.60	19.61	19.64	20.50
		50	0	19.62	19.64	19.67	20.50
	64QAM	1	0	19.95	19.92	20.00	20.50
		1	25	20.18	20.13	20.20	20.50
		1	49	19.84	19.80	19.83	20.50



Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up	
				132047/1717.5	132322/1745	132597/1772.5		
		25	0	19.78	19.73	19.79	20.50	
		25	13	19.72	19.69	19.75	20.50	
		25	25	19.59	19.60	19.63	20.50	
		50	0	19.64	19.66	19.69	20.50	
15MHz	QPSK	1	0	19.56	19.44	19.41	20.50	
		1	38	19.76	19.96	19.67	20.50	
		1	74	19.41	19.41	19.30	20.50	
		36	0	19.51	19.66	19.54	20.50	
		36	18	19.59	19.63	19.59	20.50	
		36	39	19.55	19.51	19.42	20.50	
		75	0	19.53	19.57	19.49	20.50	
	16QAM	1	0	20.10	20.08	20.14	20.50	
		1	38	20.19	20.15	20.22	20.50	
		1	74	19.92	19.89	19.93	20.50	
		36	0	19.70	19.68	19.73	20.50	
		36	18	19.67	19.63	19.70	20.50	
		36	39	19.58	19.57	19.61	20.50	
		75	0	19.59	19.59	19.63	20.50	
	64QAM	1	0	19.90	19.90	19.98	20.50	
		1	38	20.16	20.10	20.18	20.50	
		1	74	19.85	19.79	19.84	20.50	
		36	0	19.77	19.75	19.80	20.50	
		36	18	19.70	19.66	19.74	20.50	
		36	39	19.57	19.56	19.60	20.50	
		75	0	19.61	19.61	19.65	20.50	
	Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Tune-up
					132072/1720	132322/1745	132572/1770	
	20MHz	QPSK	1	0	19.53	19.40	19.38	20.50
			1	50	19.75	19.92	19.65	20.50
			1	99	19.39	19.40	19.27	20.50
			50	0	19.48	19.61	19.50	20.50
			50	25	19.57	19.59	19.56	20.50
50			50	19.52	19.46	19.38	20.50	
100			0	19.50	19.52	19.45	20.50	
16QAM		1	0	20.07	20.04	20.09	20.50	
		1	50	20.16	20.13	20.18	20.50	
		1	99	19.89	19.86	19.91	20.50	
		50	0	19.67	19.64	19.70	20.50	
		50	25	19.64	19.61	19.67	20.50	
		50	50	19.55	19.52	19.57	20.50	
		100	0	19.57	19.55	19.60	20.50	



	64QAM	1	0	19.88	19.86	19.93	20.50
		1	50	20.12	20.08	20.14	20.50
		1	99	19.79	19.73	19.78	20.50
		50	0	19.72	19.67	19.73	20.50
		50	25	19.66	19.62	19.68	20.50
		50	50	19.54	19.51	19.56	20.50
		100	0	19.59	19.57	19.62	20.50

### 9.4 WLAN Mode

Wi-Fi 2.4G Full Power& Receiver Off	Channel /Frequency(MHz)	Maximum Output Power (dBm)	
		Tune-up	Meas.
Mode			
802.11b (1M)	1/2412	18.50	17.13
	6/2437	18.50	17.48
	11/2462	18.50	17.57
802.11g (6M)	1/2412	17.50	15.95
	6/2437	17.50	16.36
	10/2457	17.50	15.97
	11/2462	15.50	14.10
802.11n-HT20 (MCS0)	1/2412	16.50	14.82
	6/2437	16.50	15.35
	10/2457	16.50	15.01
	11/2462	14.50	12.93

Wi-Fi 2.4G Receiver On	Channel /Frequency(MHz)	Maximum Output Power (dBm)	
		Tune-up	Meas.
Mode			
802.11b (1M)	1/2412	15.50	13.66
	6/2437	15.50	14.62
	11/2462	15.50	14.63
802.11g (6M)	1/2412	14.50	12.71
	6/2437	14.50	13.57
	10/2457	14.50	13.55
	11/2462	12.50	11.36
802.11n-HT20 (MCS0)	1/2412	13.50	11.58
	6/2437	13.50	12.31
	10/2457	13.50	12.48
	11/2462	11.50	10.23



5GHz Wi-Fi U-NII-1 Full Power& Receiver Off	Channel /Freq.(MHz)	Maximum Output Power (dBm)	
		Tune-up	Meas.
802.11a(6M)	36/5180	16.50	15.19
	40/5200	16.50	15.10
	44/5220	16.50	15.26
	48/5240	16.50	14.75
802.11nHT20(MCS0)	36/5180	15.50	14.01
	40/5200	15.50	13.40
	44/5220	15.50	13.56
	48/5240	15.50	13.48
802.11nHT40(MCS0)	38/5190	13.50	11.83
	46/5230	13.50	11.71
802.11ac-VHT20(MCS0)	36/5180	13.50	11.77
	40/5200	13.50	11.40
	44/5220	13.50	11.86
	48/5240	13.50	11.98
802.11ac-VHT40(MCS0)	38/5190	13.50	11.30
	46/5230	13.50	11.70
802.11ac-VHT80(MCS0)	42/5210	13.50	11.37

5GHz Wi-Fi (U-NII-2A) Full Power& Receiver Off	Channel /Freq.(MHz)	Maximum Output Power (dBm)	
		Tune-up	Meas.
802.11a(6M)	52/5260	16.50	15.10
	56/5280	16.50	15.30
	60/5300	16.50	15.36
	64/5320	16.50	15.26
802.11nHT20(MCS0)	52/5260	15.50	13.37
	56/5280	15.50	13.59
	60/5300	15.50	13.67
	64/5320	15.50	14.16
802.11nHT40(MCS0)	54/5270	13.50	11.21
	62/5310	13.50	11.40
802.11ac-VHT20(MCS0)	52/5260	13.50	11.90
	56/5280	13.50	11.88
	60/5300	13.50	12.00
	64/5320	13.50	11.93
802.11ac-VHT40(MCS0)	54/5270	13.50	11.71
	62/5310	13.50	11.96
802.11ac-VHT80(MCS0)	58/5290	13.50	11.50





5GHz Wi-Fi U-NII-2C Full Power& Receiver Off	Channel /Freq.(MHz)	Maximum Output Power (dBm)	
		Tune-up	Meas.
802.11a (6M)	100/5500	15.50	14.42
	116/5580	16.50	14.62
	132/5660	16.50	14.56
	136/5680	16.50	14.95
	140/5700	15.50	13.99
802.11nHT20 (MCS0)	100/5500	15.50	13.91
	116/5580	15.50	13.38
	132/5660	15.50	13.40
	136/5680	14.50	12.79
	140/5700	15.50	13.41
802.11nHT40 (MCS0)	102/5510	13.50	11.03
	110/5550	13.50	11.57
	118/5590	13.50	11.13
	134/5670	13.50	11.05
802.11ac-VHT20 (MCS0)	100/5500	13.50	11.85
	116/5580	13.50	11.20
	132/5660	13.50	11.27
	140/5700	13.50	11.13
802.11ac-VHT40 (MCS0)	102/5510	13.50	11.75
	110/5550	13.50	11.77
	118/5590	13.50	11.24
	134/5670	13.50	11.17
802.11ac-VHT80 (MCS0)	106/5530	13.50	11.36
	122/5610	13.50	11.03

5GHz Wi-Fi U-NII-3 Full Power& Receiver Off	Channel /Freq.(MHz)	Maximum Output Power (dBm)	
		Tune-up	Meas.
802.11a(6M)	149/5745	16.50	15.11
	157/5785	16.50	15.02
	165/5825	16.50	15.01
802.11nHT20(MCS0)	149/5745	15.50	13.85
	157/5785	15.50	13.36
	165/5825	15.50	13.84
802.11nHT40(MCS0)	151/5755	13.50	11.20
	159/5795	13.50	11.03
802.11ac-VHT20(MCS0)	149/5745	13.50	11.66
	157/5785	13.50	11.76
	165/5825	13.50	11.70



802.11ac-VHT40(MCS0)	151/5755	13.50	11.60
	159/5795	13.50	11.56
802.11ac-VHT80(MCS0)	155/5775	13.50	11.33

5GHz Wi-Fi U-NII-1 Receiver On	Channel /Freq.(MHz)	Maximum Output Power (dBm)	
		Tune-up	Meas.
802.11a(6M)	36/5180	13.50	12.26
	40/5200	13.50	12.34
	44/5220	13.50	12.31
	48/5240	13.50	12.37
802.11nHT20(MCS0)	36/5180	12.50	11.14
	40/5200	12.50	11.06
	44/5220	12.50	11.16
	48/5240	12.50	11.23
802.11nHT40(MCS0)	38/5190	10.50	8.79
	46/5230	10.50	8.86
802.11ac-VHT20(MCS0)	36/5180	10.50	8.90
	40/5200	10.50	8.82
	44/5220	10.50	8.92
	48/5240	10.50	8.97
802.11ac-VHT40(MCS0)	38/5190	10.50	8.80
	46/5230	10.50	8.74
802.11ac-VHT80(MCS0)	42/5210	10.50	8.52

5GHz Wi-Fi (U-NII-2A) Receiver On	Channel /Freq.(MHz)	Maximum Output Power (dBm)	
		Tune-up	Meas.
802.11a(6M)	52/5260	14.00	12.72
	56/5280	14.00	12.83
	60/5300	14.00	12.93
	64/5320	14.00	12.95
802.11nHT20(MCS0)	52/5260	13.00	11.76
	56/5280	13.00	11.64
	60/5300	13.00	11.65
	64/5320	13.00	11.72
802.11nHT40(MCS0)	54/5270	11.00	9.53
	62/5310	11.00	9.57
802.11ac-VHT20(MCS0)	52/5260	11.00	9.62
	56/5280	11.00	9.67
	60/5300	11.00	9.68
	64/5320	11.00	9.69



802.11ac-VHT40(MCS0)	54/5270	11.00	9.45
	62/5310	11.00	9.43
802.11ac-VHT80(MCS0)	58/5290	11.00	9.08

5GHz Wi-Fi U-NII-2C Receiver On	Channel /Freq.(MHz)	Maximum Output Power (dBm)	
		Tune-up	Meas.
802.11a (6M)	100/5500	13.00	11.72
	116/5580	14.00	12.30
	132/5660	14.00	12.04
	136/5680	14.00	12.04
	140/5700	13.00	11.12
802.11nHT20 (MCS0)	100/5500	13.00	11.56
	116/5580	13.00	11.10
	132/5660	13.00	10.91
	136/5680	12.00	10.91
	140/5700	13.00	10.92
802.11nHT40 (MCS0)	102/5510	11.00	9.43
	110/5550	11.00	9.30
	118/5590	11.00	8.84
	134/5670	11.00	8.63
802.11ac-VHT20 (MCS0)	100/5500	11.00	9.48
	116/5580	11.00	8.92
	132/5660	11.00	8.70
	140/5700	11.00	8.69
802.11ac-VHT40 (MCS0)	102/5510	11.00	9.32
	110/5550	11.00	9.34
	118/5590	11.00	8.72
	134/5670	11.00	8.59
802.11ac-VHT80 (MCS0)	106/5530	11.00	9.18
	122/5610	11.00	8.56

5GHz Wi-Fi U-NII-3 Receiver On	Channel /Freq.(MHz)	Maximum Output Power (dBm)	
		Tune-up	Meas.
802.11a(6M)	149/5745	14.00	12.76
	157/5785	14.00	12.57
	165/5825	14.00	12.76
802.11nHT20(MCS0)	149/5745	13.00	11.56
	157/5785	13.00	11.51
	165/5825	13.00	11.50
802.11nHT40(MCS0)	151/5755	11.00	9.24
	159/5795	11.00	9.23



802.11ac-VHT20(MCS0)	149/5745	11.00	9.33
	157/5785	11.00	9.32
	165/5825	11.00	9.42
802.11ac-VHT40(MCS0)	151/5755	11.00	9.28
	159/5795	11.00	9.27
802.11ac-VHT80(MCS0)	155/5775	11.00	8.94

### 9.5 Bluetooth Mode

Bluetooth	Conducted Power(dBm)			Tune-up Limit (dBm)
	Channel/Frequency(MHz)			
	Ch 0/2402 MHz	Ch 39/2441 MHz	Ch 78/2480 MHz	
GFSK	10.43	11.50	11.16	12.50
$\pi/4$ DQPSK	7.55	8.34	8.11	8.50
8DPSK	7.54	8.33	8.10	8.50
BLE	Ch 0/2402 MHz	Ch 19/2440 MHz	Ch 39/2480 MHz	Tune-up Limit (dBm)
GFSK(1M)	1.60	2.67	3.60	4.50
GFSK(2M)	1.58	2.66	3.59	4.50

## 10 Measured and Reported (Scaled) SAR Results

### 10.1 EUT Antenna Locations

The Detailed Antenna Locations refer to *Antenna Locations*.

Overall (Length x Width): 169 mm x 76mm						
Overall Diagonal: 180 mm/Display Diagonal: 176mm						
Distance of the Antenna to the EUT Surface/Edge						
Antenna	Back Side	Front side	Left Edge	Right Edge	Top Edge	Bottom Edge
Low Antenna	<25mm	<25mm	<25mm	<25mm	>25mm	<25mm
Upper Antenna	<25mm	<25mm	<25mm	>25mm	<25mm	>25mm
Bluetooth/Wi-Fi Antenna	<25mm	<25mm	>25mm	<25mm	<25mm	>25mm
Hotspot Mode, Positions for SAR Tests						
Mode	Back Side	Front side	Left Edge	Right Edge	Top Edge	Bottom Edge
Low Antenna	Yes	Yes	Yes	Yes	N/A	Yes
Upper Antenna	Yes	Yes	Yes	N/A	Yes	N/A
Bluetooth/Wi-Fi Antenna	Yes	Yes	N/A	Yes	Yes	N/A

Note:

- 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.
- For smart phones with an overall diagonal dimension is 180mm. 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.
- 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  $2.0\text{ W/kg}$ , for 1-g or 10-g respectively, when the transmission band is  $\leq 100\text{MHz}$
  - $\leq 0.6\text{ W/kg}$  or  $1.5\text{ W/kg}$ , 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  $1.0\text{ W/kg}$ , for 1-g or 10-g respectively, when the transmission band is  $\geq 200\text{ MHz}$ .
- When the original highest measured SAR is  $\geq 0.80\text{ W/kg}$ , the measurement was repeated once.
- Per FCC KDB Publication 648474 D04, SAR was evaluated without a headset connected to the device. Since the reported SAR was  $\leq 1.2\text{ W/kg}$ , no additional SAR evaluations using a headset cable were required.



## 10.2 Measured SAR Results

Note:

- The value with blue color is the maximum SAR Value of each test band.
- For GSM, when multiple slots are used, SAR should be tested to account for the maximum source-based time-averaged output power.
- For WCDMA, When the maximum output power and tune-up tolerance specified for production units in a secondary mode is  $\leq \frac{1}{4}$  dB higher than the primary mode or when the highest reported SAR of the primary mode is scaled by the ratio of specified maximum output power and tune-up tolerance of secondary to primary mode and the adjusted SAR is  $\leq 1.2$  W/kg, SAR measurement is not required for the secondary mode.
- For LTE, QPSK with 100% RB allocation, SAR is required when and the highest reported SAR for 1 RB and 50% RB allocation in are  $\geq 50\%$  limit (1g).
- The highest reported SAR for a test configuration is  $> 1.2$  W/kg, SAR is required for U-NII-1 band for that configuration (802.11 mode and exposure condition); otherwise, each band is tested independently for SAR. Since the band U-NII-2A does not support hotspot function, hotspot SAR for U-NII-1 is required.
- Accessories that do not contain RF transmitters and have been proven to increase the peak SAR by less than 5 %, such as hands-free kits, do not need SAR tests separate from the SAR tests attached to a main EUT configuration.
- Hotspot(10mm) power level is same as body worn, the 10mm SAR value are more stringent than 15mm, so 10mm SAR value can cover body worn 15mm .So this product can meet SAR limit under strict conditions

### Head SAR

Band	Antenna	Test Position	Dist. (mm)	Mode	Power Reduction	RB	Offset	Ch./Freq. (MHz)	Tune-up (dBm)	Measured power (dBm)	Measured SAR1g (W/kg)	Power Drift (dB)	Scaling Factor	Report SAR1g (W/kg)	Plot No.
GSM 850	Low Antenna	Left Cheek	0	GSM	DS11	-	-	190/836.6	33.50	31.78	0.159	0.040	1.49	0.236	/
		Left Tilt	0	GSM	DS11	-	-	190/836.6	33.50	31.78	0.071	0.030	1.49	0.105	/
		Right Cheek	0	GSM	DS11	-	-	190/836.6	33.50	31.78	0.156	0.070	1.49	0.232	/
		Right Tilt	0	GSM	DS11	-	-	190/836.6	33.50	31.78	0.057	0.080	1.49	0.084	/
	Upper Antenna	Left Cheek	0	GSM	DS11	-	-	190/836.6	33.50	32.45	0.662	0.030	1.27	0.843	/
		Left Tilt	0	GSM	DS11	-	-	190/836.6	33.50	32.45	0.348	-0.010	1.27	0.443	/
		Right Cheek	0	GSM	DS11	-	-	190/836.6	33.50	32.45	0.802	0.010	1.27	1.021	22
		Right Tilt	0	GSM	DS11	-	-	190/836.6	33.50	32.45	0.678	-0.030	1.27	0.863	/
		Right Cheek	0	GSM	DS11	-	-	128/824.2	33.50	32.51	0.711	-0.070	1.26	0.893	/
		Right Cheek	0	GSM	DS11	-	-	251/848.8	33.50	32.31	0.756	0.030	1.32	0.994	/
		Right Cheek Repeat	0	GSM	DS11	-	-	190/836.6	33.50	32.45	0.782	0.020	1.27	0.996	/
		Right Cheek Battery3	0	GSM	DS11	-	-	190/836.6	33.50	32.45	0.437	0.010	1.27	0.557	/
		Right Cheek Battery4	0	GSM	DS11	-	-	190/836.6	33.50	32.45	0.556	0.050	1.27	0.708	/
		Right Cheek Battery1	0	GSM	DS11	-	-	190/836.6	33.50	32.45	0.768	0.036	1.27	0.978	/
GSM 1900	Low Antenna	Left Cheek	0	GSM	DS11	-	-	661/1880	30.00	29.00	0.100	-0.110	1.26	0.126	/
		Left Tilt	0	GSM	DS11	-	-	661/1880	30.00	29.00	0.098	0.150	1.26	0.124	/



		Right Cheek	0	GSM	DS11	-	-	661/1880	30.00	29.00	0.078	0.072	1.26	0.098	/	
		Right Tilt	0	GSM	DS11	-	-	661/1880	30.00	29.00	0.072	0.050	1.26	0.091	/	
	Upper Antenna		Left Cheek	0	GSM	DS11	-	-	661/1880	29.50	29.25	0.299	-0.040	1.06	0.317	/
			Left Tilt	0	GSM	DS11	-	-	661/1880	29.50	29.25	0.426	-0.020	1.06	0.451	/
		Right Cheek	0	GSM	DS11	-	-	661/1880	29.50	29.25	0.411	0.110	1.06	0.435	/	
		Right Tilt	0	GSM	DS11	-	-	661/1880	29.50	29.25	0.525	0.080	1.06	0.556	23	
		Right Tilt Battery3	0	GSM	DS11	-	-	661/1880	29.50	29.25	0.045	0.000	1.06	0.048	/	
		Right Tilt Battery4	0	GSM	DS11	-	-	661/1880	29.50	29.25	0.125	0.000	1.06	0.132	/	
Right Tilt Battery1	0	GSM	DS11	-	-	661/1880	29.50	29.25	0.512	0.045	1.06	0.542	/			
WCDMA II	Low Antenna	Left Cheek	0	RMC 12.2K	DS11	-	-	9400/1880	24.50	22.88	0.144	0.030	1.45	0.209	/	
		Left Tilt	0	RMC 12.2K	DS11	-	-	9400/1880	24.50	22.88	0.126	0.034	1.45	0.183	/	
		Right Cheek	0	RMC 12.2K	DS11	-	-	9400/1880	24.50	22.88	0.083	0.032	1.45	0.121	/	
		Right Tilt	0	RMC 12.2K	DS11	-	-	9400/1880	24.50	22.88	0.093	-0.022	1.45	0.135	/	
	Upper Antenna	Left Cheek	0	RMC 12.2K	DS11	-	-	9400/1880	22.00	20.78	0.398	-0.010	1.32	0.527	/	
		Left Tilt	0	RMC 12.2K	DS11	-	-	9400/1880	22.00	20.78	0.531	0.010	1.32	0.703	/	
		Right Cheek	0	RMC 12.2K	DS11	-	-	9400/1880	22.00	20.78	0.541	0.050	1.32	0.716	/	
		Right Tilt	0	RMC 12.2K	DS11	-	-	9400/1880	22.00	20.78	0.769	0.024	1.32	1.018	24	
		Right Tilt	0	RMC 12.2K	DS11	-	-	9400/1880	22.00	20.75	0.745	0.036	1.33	0.993	/	
		Right Tilt	0	RMC 12.2K	DS11	-	-	9400/1880	22.00	20.87	0.759	0.045	1.30	0.985	/	
		Right Tilt Battery3	0	RMC 12.2K	DS11	-	-	9400/1880	22.00	20.78	0.547	0.000	1.32	0.724	/	
		Right Tilt Battery4	0	RMC 12.2K	DS11	-	-	9400/1880	22.00	20.78	0.536	0.020	1.32	0.710	/	
		Right Tilt Battery1	0	RMC 12.2K	DS11	-	-	9400/1880	22.00	20.78	0.750	0.024	1.32	0.993	/	
		WCDMA IV	Low Antenna	Left Cheek	0	RMC 12.2K	DS11	-	-	1413/1732.6	24.50	23.03	0.095	0.160	1.40	0.133
Left Tilt	0			RMC 12.2K	DS11	-	-	1413/1732.6	24.50	23.03	0.106	0.041	1.40	0.149	/	
Right Cheek	0			RMC 12.2K	DS11	-	-	1413/1732.6	24.50	23.03	0.113	0.100	1.40	0.159	/	
Right Tilt	0			RMC 12.2K	DS11	-	-	1413/1732.6	24.50	23.03	0.088	-0.020	1.40	0.124	/	
Upper Antenna	Left Cheek		0	RMC 12.2K	DS11	-	-	1413/1732.6	20.00	18.85	0.409	0.045	1.30	0.533	/	
	Left Tilt		0	RMC 12.2K	DS11	-	-	1413/1732.6	20.00	18.85	0.497	0.036	1.30	0.647	/	
	Right Cheek		0	RMC 12.2K	DS11	-	-	1413/1732.6	20.00	18.85	0.576	0.120	1.30	0.751	/	
	Right Tilt		0	RMC 12.2K	DS11	-	-	1413/1732.6	20.00	18.85	0.701	-0.020	1.30	0.914	/	
	Right Tilt		0	RMC 12.2K	DS11	-	-	1413/1732.6	20.00	18.78	0.658	0.028	1.32	0.871	/	
	Right Tilt		0	RMC 12.2K	DS11	-	-	1413/1732.6	20.00	18.72	0.725	0.036	1.34	0.974	/	
	Right Tilt Battery3		0	RMC 12.2K	DS11	-	-	1413/1732.6	20.00	18.72	0.416	0.015	1.34	0.559	/	
	Right Tilt Battery4		0	RMC 12.2K	DS11	-	-	1413/1732.6	20.00	18.72	0.712	0.030	1.34	0.956	/	
Right Tilt	0	RMC 12.2K	DS11	-	-	1413/1732.6	20.00	18.72	0.765	0.032	1.34	1.027	25			





		Battery1													
WCDMA V	Low Antenna	Left Cheek	0	RMC 12.2K	DS11	-	-	4183/836.6	24.50	23.17	0.129	0.090	1.36	0.175	/
		Left Tilt	0	RMC 12.2K	DS11	-	-	4183/836.6	24.50	23.17	0.058	0.032	1.36	0.079	/
		Right Cheek	0	RMC 12.2K	DS11	-	-	4183/836.6	24.50	23.17	0.162	0.040	1.36	0.220	/
		Right Tilt	0	RMC 12.2K	DS11	-	-	4183/836.6	24.50	23.17	0.074	0.170	1.36	0.100	/
	Upper Antenna	Left Cheek	0	RMC 12.2K	DS11	-	-	4183/836.6	23.50	22.03	0.577	0.069	1.40	0.809	/
			0	RMC 12.2K	DS11	-	-	4132/826.4	23.50	22.03	0.452	0.058	1.40	0.634	/
			0	RMC 12.2K	DS11	-	-	4233/846.6	23.50	22.03	0.392	0.045	1.40	0.550	/
		Left Tilt	0	RMC 12.2K	DS11	-	-	4183/836.6	23.50	22.03	0.381	0.036	1.40	0.535	/
		Right Cheek	0	RMC 12.2K	DS11	-	-	4183/836.6	23.50	22.03	0.634	0.110	1.40	0.890	/
			0	RMC 12.2K	DS11	-	-	4132/826.4	23.50	22.08	0.701	-0.014	1.39	0.972	26
		Right Tilt	0	RMC 12.2K	DS11	-	-	4183/836.6	23.50	22.03	0.502	-0.085	1.40	0.704	/
		Right Cheek Battery3	0	RMC 12.2K	DS11	-	-	4132/826.4	23.50	22.08	0.139	0.010	1.39	0.193	/
		Right Cheek Battery4	0	RMC 12.2K	DS11	-	-	4132/826.4	23.50	22.08	0.339	0.040	1.39	0.470	/
		Right Cheek Battery1	0	RMC 12.2K	DS11	-	-	4132/826.4	23.50	22.08	0.679	0.035	1.39	0.942	/
LTE 2	Low Antenna	Left Cheek	0	QPSK	DS11	1	50	18900/1880	24.50	23.40	0.236	0.021	1.29	0.304	/
			0	QPSK	DS11	50%	25	19100/1900	23.50	22.40	0.147	0.124	1.29	0.189	/
		Left Tilt	0	QPSK	DS11	1	50	18900/1880	24.50	23.40	0.166	-0.120	1.29	0.214	/
			0	QPSK	DS11	50%	25	19100/1900	23.50	22.40	0.096	-0.022	1.29	0.123	/
		Right Cheek	0	QPSK	DS11	1	50	18900/1880	24.50	23.40	0.126	0.043	1.29	0.162	/
			0	QPSK	DS11	50%	25	19100/1900	23.50	22.40	0.092	0.020	1.29	0.119	/
	Right Tilt	0	QPSK	DS11	1	50	18900/1880	24.50	23.40	0.088	0.130	1.29	0.113	/	
		0	QPSK	DS11	50%	25	19100/1900	23.50	22.40	0.062	0.027	1.29	0.080	/	
	Upper Antenna	Left Cheek	0	QPSK	DS11	1	50	19100/1900	20.50	19.48	0.213	0.080	1.26	0.269	/
			0	QPSK	DS11	50%	50	19100/1900	20.50	19.41	0.208	0.130	1.29	0.267	/
		Left Tilt	0	QPSK	DS11	1	50	19100/1900	20.50	19.48	0.307	0.040	1.26	0.388	/
			0	QPSK	DS11	50%	50	19100/1900	20.50	19.41	0.279	0.000	1.29	0.359	/
		Right Cheek	0	QPSK	DS11	1	50	19100/1900	20.50	19.48	0.321	0.090	1.26	0.406	/
			0	QPSK	DS11	50%	50	19100/1900	20.50	19.41	0.281	0.160	1.29	0.361	/
		Right Tilt	0	QPSK	DS11	1	50	19100/1900	20.50	19.48	0.439	0.030	1.26	0.555	/
			0	QPSK	DS11	50%	50	19100/1900	20.50	19.41	0.390	0.160	1.29	0.501	/
Right Tilt Battery3	0	QPSK	DS11	1	50	19100/1900	20.50	19.48	0.388	0.010	1.26	0.491	/		
Right Tilt Battery4	0	QPSK	DS11	1	50	19100/1900	20.50	19.48	0.585	0.130	1.26	0.740	27		
Right Tilt Battery1	0	QPSK	DS11	1	50	19100/1900	20.50	19.48	0.456	0.078	1.26	0.577	/		
LTE 5	Low Antenna	Left Cheek	0	QPSK	DS11	1	25	20525/836.5	24.50	23.70	0.160	0.140	1.20	0.192	/
			0	QPSK	DS11	50%	0	20600/844	23.50	22.79	0.125	0.107	1.18	0.147	/



Upper Antenna	Left Tilt	0	QPSK	DS11	1	25	20525/836.5	24.50	23.70	0.076	-0.018	1.20	0.091	/	
		0	QPSK	DS11	50%	0	20600/844	23.50	22.79	0.058	0.180	1.18	0.068	/	
	Right Cheek	0	QPSK	DS11	1	25	20525/836.5	24.50	23.70	0.153	0.045	1.20	0.184	/	
		0	QPSK	DS11	50%	0	20600/844	23.50	22.79	0.115	0.081	1.18	0.135	/	
	Right Tilt	0	QPSK	DS11	1	25	20525/836.5	24.50	23.70	0.067	0.130	1.20	0.080	/	
		0	QPSK	DS11	50%	0	20600/844	23.50	22.79	0.053	0.110	1.18	0.062	/	
	Left Cheek	0	QPSK	DS11	1	25	20450/829	24.50	23.52	0.689	0.010	1.25	0.863	/	
		0	QPSK	DS11	1	25	20525/836.5	25.00	23.51	0.561	-0.020	1.41	0.791	/	
		0	QPSK	DS11	1	25	20600/844	25.00	23.47	0.556	-0.060	1.42	0.791	/	
		0	QPSK	DS11	50%	0	20450/829	23.50	22.59	0.557	-0.020	1.23	0.687	/	
	Left Tilt	0	QPSK	DS11	1	25	20450/829	24.50	23.52	0.564	-0.060	1.25	0.707	/	
		0	QPSK	DS11	50%	0	20450/829	23.50	22.59	0.457	-0.020	1.23	0.564	/	
	Right Cheek	0	QPSK	DS11	1	25	20450/829	24.50	23.52	0.863	0.000	1.25	1.081	28	
	Right Cheek SIM2	0	QPSK	DS11	1	25	20450/829	24.50	23.52	0.832	0.015	1.25	1.043	/	
	Right Cheek 3+32G	0	QPSK	DS11	1	25	20450/829	24.50	23.52	0.816	0.032	1.25	1.023	/	
	Right Cheek 3+64G	0	QPSK	DS11	1	25	20450/829	24.50	23.52	0.851	0.012	1.25	1.066	/	
	Right Cheek 4+64G	0	QPSK	DS11	1	25	20450/829	24.50	23.52	0.811	0.150	1.25	1.016	/	
	Right Cheek	0	QPSK	DS11	1	25	20525/836.5	24.50	23.51	0.794	-0.011	1.26	0.997	/	
	Right Cheek	0	QPSK	DS11	1	25	20600/844	24.50	23.47	0.743	-0.070	1.27	0.942	/	
	Right Cheek	0	QPSK	DS11	50%	0	20450/829	23.50	22.59	0.760	0.010	1.23	0.937	/	
	Right Cheek	0	QPSK	DS11	50%	0	20525/836.5	23.50	22.55	0.651	-0.010	1.24	0.810	/	
	Right Cheek	0	QPSK	DS11	50%	0	20600/844	23.50	22.57	0.614	0.010	1.24	0.761	/	
	Right Cheek	0	QPSK	DS11	100%	0	20450/829	23.50	22.56	0.658	-0.010	1.24	0.817	/	
	Right Cheek	0	QPSK	DS11	100%	0	20525/836.5	23.50	22.54	0.637	0.000	1.25	0.795	/	
	Right Cheek	0	QPSK	DS11	100%	0	20600/844	23.50	22.53	0.606	-0.030	1.25	0.758	/	
	Right Cheek Repeat	0	QPSK	DS11	1	25	20450/829	24.50	23.52	0.859	-0.034	1.25	1.076	/	
	Right Tilt	0	QPSK	DS11	1	25	20450/829	24.50	23.52	0.679	0.030	1.25	0.851	/	
		0	QPSK	DS11	1	25	20525/836.5	24.50	23.51	0.531	-0.020	1.26	0.667	/	
		0	QPSK	DS11	1	25	20600/844	24.50	23.47	0.510	0.000	1.27	0.647	/	
		0	QPSK	DS11	50%	0	20450/829	23.50	22.59	0.545	-0.010	1.23	0.672	/	
Right Cheek Battery3	0	QPSK	DS11	1	25	20450/829	24.50	23.52	0.605	0.020	1.25	0.758	/		
Right Cheek Battery4	0	QPSK	DS11	1	25	20450/829	24.50	23.52	0.693	-0.160	1.25	0.868	/		
Right Cheek Battery1	0	QPSK	DS11	1	25	20450/829	24.50	23.52	0.805	0.036	1.25	1.009	/		
LTE 7	Low Antenna	Left Cheek	0	QPSK	DS11	1	50	21350/2560	24.50	23.45	0.113	0.033	1.27	0.144	/
			0	QPSK	DS11	50%	0	21100/2535	23.50	22.50	0.081	0.034	1.26	0.102	/



Upper Antenna	Left Tilt	0	QPSK	DS11	1	50	21350/2560	24.50	23.45	0.141	0.052	1.27	0.180	/	
		0	QPSK	DS11	50%	0	21100/2535	23.50	22.50	0.086	0.060	1.26	0.109	/	
	Right Cheek	0	QPSK	DS11	1	50	21350/2560	24.50	23.45	0.096	0.053	1.27	0.123	/	
		0	QPSK	DS11	50%	0	21100/2535	23.50	22.50	0.058	0.139	1.26	0.073	/	
	Right Tilt	0	QPSK	DS11	1	50	21350/2560	24.50	23.45	0.077	0.029	1.27	0.098	/	
		0	QPSK	DS11	50%	0	21100/2535	23.50	22.50	0.045	0.069	1.26	0.056	/	
	Left Cheek	0	QPSK	DS11	1	50	20850/2510	21.00	19.85	0.492	0.160	1.30	0.642	/	
		0	QPSK	DS11	50%	25	20850/2510	21.00	19.82	0.543	0.045	1.31	0.713	/	
	Left Tilt	0	QPSK	DS11	1	50	20850/2510	21.00	19.85	0.597	0.058	1.30	0.778	29	
		0	QPSK	DS11	50%	25	20850/2510	21.00	19.82	0.595	-0.015	1.31	0.781	/	
	Right Cheek	0	QPSK	DS11	1	50	20850/2510	21.00	19.85	0.390	0.075	1.30	0.509	/	
		0	QPSK	DS11	50%	25	20850/2510	21.00	19.82	0.413	0.045	1.31	0.542	/	
	Right Tilt	0	QPSK	DS11	1	50	20850/2510	21.00	19.85	0.385	0.160	1.30	0.502	/	
		0	QPSK	DS11	50%	25	20850/2510	21.00	19.82	0.368	0.025	1.31	0.483	/	
	Left Tilt Battery3	0	QPSK	DS11	50%	25	20850/2510	21.00	19.82	0.445	0.010	1.31	0.584	/	
	Left Tilt Battery4	0	QPSK	DS11	50%	25	20850/2510	21.00	19.82	0.452	0.000	1.31	0.593	/	
	Left Tilt Battery1	0	QPSK	DS11	50%	25	20850/2510	21.00	19.82	0.593	0.015	1.31	0.779	/	
	Low Antenna	Left Cheek	0	QPSK	DS11	1	25	23230/782	24.50	23.56	0.095	-0.040	1.24	0.118	/
0			QPSK	DS11	50%	13	23230/782	23.50	22.56	0.070	0.016	1.24	0.087	/	
Left Tilt		0	QPSK	DS11	1	25	23230/782	24.50	23.56	0.047	0.035	1.24	0.058	/	
		0	QPSK	DS11	50%	13	23230/782	23.50	22.56	0.036	0.048	1.24	0.044	/	
Right Cheek		0	QPSK	DS11	1	25	23230/782	24.50	23.56	0.096	0.047	1.24	0.120	/	
		0	QPSK	DS11	50%	13	23230/782	23.50	22.56	0.077	0.068	1.24	0.095	/	
Right Tilt		0	QPSK	DS11	1	25	23230/782	24.50	23.56	0.034	0.034	1.24	0.042	/	
		0	QPSK	DS11	50%	13	23230/782	23.50	22.56	0.027	0.034	1.24	0.033	/	
Upper Antenna		Left Cheek	0	QPSK	DS11	1	25	23230/782	24.50	23.16	0.522	-0.030	1.36	0.711	/
			0	QPSK	DS11	50%	13	23230/782	23.50	22.11	0.420	-0.040	1.38	0.578	/
		Left Tilt	0	QPSK	DS11	1	25	23230/782	24.50	23.16	0.461	-0.010	1.36	0.628	/
			0	QPSK	DS11	50%	13	23230/782	23.50	22.11	0.371	0.000	1.38	0.511	/
	Right Cheek	0	QPSK	DS11	1	25	23230/782	24.50	23.16	0.692	0.000	1.36	0.942	30	
		0	QPSK	DS11	1	0	23230/782	24.50	23.06	0.444	-0.030	1.39	0.619	/	
		0	QPSK	DS11	1	49	23230/782	24.50	23.04	0.420	0.021	1.40	0.588	/	
		0	QPSK	DS11	50%	13	23230/782	23.50	22.11	0.565	0.056	1.38	0.778	/	
	Right Tilt	0	QPSK	DS11	100%	0	23230/782	23.50	22.08	0.427	-0.010	1.39	0.592	/	
		0	QPSK	DS11	1	25	23230/782	24.50	23.16	0.520	0.010	1.36	0.708	/	
	Right Cheek Battery3	0	QPSK	DS11	50%	13	23230/782	23.50	22.11	0.420	0.030	1.38	0.578	/	
		0	QPSK	DS11	1	25	23230/782	24.50	23.16	0.422	0.020	1.36	0.575	/	
Right Cheek Battery4	0	QPSK	DS11	1	25	23230/782	24.50	23.16	0.473	0.040	1.36	0.644	/		

LTE 13



		Right Cheek Battery1	0	QPSK	DS11	1	25	23230/782	24.50	23.16	0.652	0.024	1.36	0.888	/	
LTE 26	Low Antenna	Left Cheek	0	QPSK	DS11	1	38	26865/831.5	24.50	23.59	0.156	-0.030	1.23	0.192	/	
			0	QPSK	DS11	50%	0	26865/831.5	23.50	22.66	0.124	0.000	1.21	0.150	/	
		Left Tilt	0	QPSK	DS11	1	38	26865/831.5	24.50	23.59	0.076	0.000	1.23	0.094	/	
			0	QPSK	DS11	50%	0	26865/831.5	23.50	22.66	0.059	0.020	1.21	0.072	/	
		Right Cheek	0	QPSK	DS11	1	38	26865/831.5	24.50	23.59	0.170	0.064	1.23	0.210	/	
			0	QPSK	DS11	50%	0	26865/831.5	23.50	22.66	0.141	0.020	1.21	0.171	/	
		Right Tilt	0	QPSK	DS11	1	38	26865/831.5	24.50	23.59	0.081	-0.030	1.23	0.100	/	
			0	QPSK	DS11	50%	0	26865/831.5	23.50	22.66	0.063	-0.040	1.21	0.076	/	
		Upper Antenna	Left Cheek	0	QPSK	DS11	1	38	26865/831.5	24.50	23.43	0.713	0.010	1.28	0.912	/
				0	QPSK	DS11	1	38	26765/821.5	24.50	23.41	0.616	-0.018	1.29	0.792	/
				0	QPSK	DS11	1	38	26965/841.5	24.50	23.34	0.589	-0.013	1.31	0.769	/
				0	QPSK	DS11	50%	18	26865/831.5	23.50	22.50	0.579	0.010	1.26	0.729	/
			Left Tilt	0	QPSK	DS11	1	38	26865/831.5	24.50	23.43	0.530	-0.010	1.28	0.678	/
				0	QPSK	DS11	50%	18	26865/831.5	23.50	22.50	0.433	-0.010	1.26	0.545	/
	Right Cheek		0	QPSK	DS11	1	38	26865/831.5	24.50	23.43	0.809	-0.030	1.28	1.035	/	
			0	QPSK	DS11	1	38	26765/821.5	24.50	23.41	0.820	0.000	1.29	1.054	31	
			0	QPSK	DS11	1	38	26965/841.5	24.50	23.34	0.791	0.010	1.31	1.033	/	
			0	QPSK	DS11	50%	18	26865/831.5	23.50	22.50	0.664	0.000	1.26	0.836	/	
			0	QPSK	DS11	50%	18	26765/821.5	23.50	22.46	0.683	0.000	1.27	0.868	/	
			0	QPSK	DS11	50%	18	26965/841.5	23.50	22.47	0.651	0.000	1.27	0.825	/	
			0	QPSK	DS11	100%	0	26865/831.5	23.50	22.47	0.693	0.070	1.27	0.878	/	
			0	QPSK	DS11	100%	0	26765/821.5	23.50	22.38	0.697	0.000	1.29	0.902	/	
	0		QPSK	DS11	100%	0	26965/841.5	23.50	22.41	0.730	0.000	1.29	0.938	/		
	Right Cheek Repeat		0	QPSK	DS11	1	38	26765/821.5	24.50	23.41	0.774	0.040	1.29	0.995	/	
	Right Tilt		0	QPSK	DS11	1	38	26865/831.5	24.50	23.43	0.598	0.010	1.28	0.765	/	
			0	QPSK	DS11	50%	18	26865/831.5	23.50	22.50	0.486	0.010	1.26	0.612	/	
Right Cheek Battery3	0	QPSK	DS11	1	38	26765/821.5	24.50	23.41	0.557	0.000	1.29	0.716	/			
Right Cheek Battery4	0	QPSK	DS11	1	38	26765/821.5	24.50	23.41	0.479	0.015	1.29	0.616	/			
Right Cheek Battery1	0	QPSK	DS11	1	38	26765/821.5	24.50	23.41	0.785	0.036	1.29	1.009	/			
LTE 38	Low Antenna	Left Cheek	0	QPSK	DS11	1	50	38150/2610	24.50	23.36	0.073	0.090	1.30	0.095	/	
			0	QPSK	DS11	50%	25	37850/2580	23.50	22.29	0.054	0.090	1.32	0.071	/	
		Left Tilt	0	QPSK	DS11	1	50	38150/2610	24.50	23.36	0.079	0.070	1.30	0.102	/	
			0	QPSK	DS11	50%	25	37850/2580	23.50	22.29	0.061	0.163	1.32	0.080	/	
		Right Cheek	0	QPSK	DS11	1	50	38150/2610	24.50	23.36	0.073	-0.076	1.30	0.095	/	
			0	QPSK	DS11	50%	25	37850/2580	23.50	22.29	0.054	0.077	1.32	0.071	/	
		Right Tilt	0	QPSK	DS11	1	50	38150/2610	24.50	23.36	0.053	0.041	1.30	0.069	/	
			0	QPSK	DS11	50%	25	37850/2580	23.50	22.29	0.041	0.080	1.32	0.054	/	



Upper Antenna	Left Cheek	0	QPSK	DS11	1	50	37850/2580	24.00	22.45	0.469	0.032	1.43	0.670	/	
		0	QPSK	DS11	50%	25	37850/2580	23.00	22.01	0.344	0.120	1.26	0.432	/	
	Left Tilt	0	QPSK	DS11	1	50	37850/2580	24.00	22.45	0.588	0.119	1.43	0.840	/	
		0	QPSK	DS11	1	50	38000/2595	24.00	22.36	0.498	0.039	1.46	0.727	/	
		0	QPSK	DS11	1	50	38150/2610	24.00	22.45	0.521	-0.063	1.43	0.745	/	
		0	QPSK	DS11	50%	25	37850/2580	23.00	22.01	0.460	0.058	1.26	0.578	/	
		0	QPSK	DS11	100%	0	37850/2580	23.00	21.95	0.367	0.085	1.27	0.468	/	
		0	QPSK	DS11	1	50	37850/2580	24.00	22.45	0.493	0.045	1.43	0.704	/	
	Right Cheek	0	QPSK	DS11	50%	25	37850/2580	23.00	22.01	0.370	0.036	1.26	0.464	/	
		0	QPSK	DS11	1	50	37850/2580	24.00	22.45	0.574	0.052	1.43	0.820	/	
	Right Tilt	0	QPSK	DS11	1	50	38000/2595	24.00	22.36	0.498	-0.096	1.46	0.727	/	
		0	QPSK	DS11	1	50	38150/2610	24.00	22.45	0.521	0.015	1.43	0.745	/	
		0	QPSK	DS11	50%	25	37850/2580	23.00	22.01	0.452	0.045	1.26	0.568	/	
		0	QPSK	DS11	1	50	37850/2580	24.00	22.45	0.503	0.100	1.43	0.719	/	
	Upper Antenna	Left Tilt Battery3	0	QPSK	DS11	1	50	37850/2580	24.00	22.45	0.569	0.000	1.43	0.813	/
Left Tilt Battery4		0	QPSK	DS11	1	50	37850/2580	24.00	22.45	0.608	0.036	1.43	0.868	32	
Left Tilt Battery1		0	QPSK	DS11	1	50	37850/2580	24.00	22.45	0.608	0.036	1.43	0.868	32	
LTE 41	Low Antenna	Left Cheek	0	QPSK	DS11	1	50	39750/2506	24.50	23.44	0.048	0.163	1.28	0.061	/
			0	QPSK	DS11	50%	25	39750/2506	23.50	22.41	0.036	0.153	1.29	0.047	/
		Left Tilt	0	QPSK	DS11	1	50	39750/2506	24.50	23.44	0.046	0.077	1.28	0.058	/
			0	QPSK	DS11	50%	25	39750/2506	23.50	22.41	0.036	0.150	1.29	0.046	/
		Right Cheek	0	QPSK	DS11	1	50	39750/2506	24.50	23.44	0.044	0.198	1.28	0.057	/
			0	QPSK	DS11	50%	25	39750/2506	23.50	22.41	0.034	0.090	1.29	0.044	/
	Right Tilt	0	QPSK	DS11	1	50	39750/2506	24.50	23.44	0.024	0.101	1.28	0.030	/	
		0	QPSK	DS11	50%	25	39750/2506	23.50	22.41	0.018	0.148	1.29	0.024	/	
	Upper Antenna	Left Cheek	0	QPSK	DS11	1	50	39750/2506	24.00	23.03	0.337	-0.130	1.25	0.421	/
			0	QPSK	DS11	50%	25	39750/2506	23.00	22.47	0.365	-0.020	1.13	0.412	/
		Left Tilt	0	QPSK	DS11	1	50	39750/2506	24.00	23.03	0.427	0.040	1.25	0.534	/
			0	QPSK	DS11	50%	25	39750/2506	23.00	22.47	0.420	-0.120	1.13	0.475	/
		Right Cheek	0	QPSK	DS11	1	50	39750/2506	24.00	23.00	0.640	-0.051	1.26	0.806	/
			0	QPSK	DS11	1	50	40185/2549.5	24.00	22.93	0.583	-0.140	1.28	0.746	/
			0	QPSK	DS11	1	50	41490/2680	24.00	23.00	0.852	-0.073	1.26	1.073	33
0			QPSK	DS11	50%	25	39750/2506	23.00	22.47	0.553	0.010	1.13	0.625	/	
0		QPSK	DS11	100%	0	39750/2506	23.00	22.48	0.478	0.080	1.13	0.539	/		
Right Cheek Repeat		0	QPSK	DS11	1	50	41490/2680	24.00	23.00	0.632	-0.080	1.26	0.796	/	
Right Tilt	0	QPSK	DS11	1	50	39750/2506	24.00	23.03	0.550	0.100	1.25	0.688	/		
	0	QPSK	DS11	50%	25	39750/2506	23.00	22.47	0.434	-0.090	1.13	0.490	/		
Upper Antenna	Right Cheek Battery3	0	QPSK	DS11	1	50	41490/2680	24.00	23.00	0.587	0.010	1.26	0.739	/	
	Right Cheek	0	QPSK	DS11	1	50	41490/2680	24.00	23.00	0.683	-0.060	1.26	0.860	/	



LTE 66	Antenna	Battery4														
		Right Cheek Battery1	0	QPSK	DS11	1	50	41490/2680	24.00	23.00	0.801	0.000	1.26	1.008	/	
	Low	Left Cheek	0	QPSK	DS11	1	50	132322/1745	24.50	23.39	0.112	0.020	1.29	0.145	/	
			0	QPSK	DS11	50%	25	132572/1770	23.50	22.42	0.098	0.030	1.28	0.126	/	
		Left Tilt	0	QPSK	DS11	1	50	132322/1745	24.50	23.39	0.156	0.000	1.29	0.201	/	
			0	QPSK	DS11	50%	25	132572/1770	23.50	22.42	0.138	-0.140	1.28	0.177	/	
		Right Cheek	0	QPSK	DS11	1	50	132322/1745	24.50	23.39	0.186	0.100	1.29	0.240	/	
			0	QPSK	DS11	50%	25	132572/1770	23.50	22.42	0.164	0.010	1.28	0.210	/	
		Right Tilt	0	QPSK	DS11	1	50	132322/1745	24.50	23.39	0.129	0.010	1.29	0.167	/	
			0	QPSK	DS11	50%	25	132572/1770	23.50	22.42	0.118	0.040	1.28	0.151	/	
		Upper Antenna	Left Cheek	0	QPSK	DS11	1	50	132322/1745	18.50	17.70	0.315	0.030	1.20	0.379	/
				0	QPSK	DS11	50%	0	132322/1745	18.50	17.60	0.323	0.020	1.23	0.397	/
	Left Tilt		0	QPSK	DS11	1	50	132322/1745	18.50	17.70	0.364	0.010	1.20	0.438	/	
			0	QPSK	DS11	50%	0	132322/1745	18.50	17.60	0.374	0.030	1.23	0.460	/	
	Right Cheek		0	QPSK	DS11	1	50	132322/1745	18.50	17.70	0.530	0.000	1.20	0.637	/	
			0	QPSK	DS11	50%	0	132322/1745	18.50	17.60	0.549	0.000	1.23	0.675	/	
	Right Tilt		0	QPSK	DS11	1	50	132322/1745	18.50	17.70	0.594	0.040	1.20	0.714	/	
			0	QPSK	DS11	50%	0	132322/1745	18.50	17.60	0.616	0.010	1.23	0.758	/	
	Right Tilt Battery3		0	QPSK	DS11	50%	0	132322/1745	18.50	17.60	0.708	0.010	1.23	0.871	34	
	Right Tilt Battery4		0	QPSK	DS11	50%	0	132322/1745	18.50	17.60	0.613	0.130	1.23	0.754	/	
Right Tilt Battery1	0	QPSK	DS11	50%	0	132322/1745	18.50	17.60	0.635	0.045	1.23	0.781	/			

Band	Antenna	Test Position	Dist. (mm)	Mode	Duty Cycle	Power Reduction	Ch./Freq. (MHz)	Tune-up (dBm)	Measured power (dBm)	Measured SAR1g (W/kg)	Power Drift (dB)	Scaling Factor	Report SAR1g (W/kg)	Plot No.
2.4G	Wi-Fi	Left cheek	0	802.11b	98.0%	Receiver on	11/2462	15.50	14.63	0.400	0.020	1.25	0.499	35
		Left Tilt	0	802.11b	98.0%	Receiver on	11/2462	15.50	14.63	0.372	-0.030	1.25	0.464	/
		Right cheek	0	802.11b	98.0%	Receiver on	11/2462	15.50	14.63	0.150	0.140	1.25	0.187	/
		Right Tilt	0	802.11b	98.0%	Receiver on	11/2462	15.50	14.63	0.142	-0.030	1.25	0.177	/
		Left cheek Battery3	0	802.11b	98.0%	Receiver on	11/2462	15.50	14.63	0.341	0.020	1.25	0.425	/
		Left cheek Battery4	0	802.11b	98.0%	Receiver on	11/2462	15.50	14.63	0.388	0.100	1.25	0.484	/
		Left cheek Battery1	0	802.11b	98.0%	Receiver on	11/2462	15.50	14.63	0.365	0.045	1.25	0.455	/
U-NII-1	Wi-Fi	Left cheek	0	802.11a	100.0%	Receiver on	48/5240	13.50	12.37	0.245	0.020	1.30	0.318	/
		Left Tilt	0	802.11a	100.0%	Receiver on	48/5240	13.50	12.37	0.329	-0.122	1.30	0.427	/
		Right cheek	0	802.11a	100.0%	Receiver on	48/5240	13.50	12.37	0.151	0.066	1.30	0.196	/
		Right Tilt	0	802.11a	100.0%	Receiver on	48/5240	13.50	12.37	0.187	0.116	1.30	0.243	/



		Left Tilt Battery3	0	802.11a	100.0%	Receiver on	48/5240	13.50	12.37	0.251	0.010	1.30	0.326	/
		Left Tilt Battery4	0	802.11a	100.0%	Receiver on	48/5240	13.50	12.37	0.299	0.000	1.30	0.388	/
		Left Tilt Battery1	0	802.11a	100.0%	Receiver on	48/5240	13.50	12.37	0.352	0.045	1.30	0.457	/
U-NII-2A	Wi-Fi	Left cheek	0	802.11a	100.0%	Receiver on	64/5320	14.00	12.95	0.275	0.150	1.27	0.350	/
		Left Tilt	0	802.11a	100.0%	Receiver on	64/5320	14.00	12.95	0.381	0.053	1.27	0.485	/
		Right cheek	0	802.11a	100.0%	Receiver on	64/5320	14.00	12.95	0.198	0.133	1.27	0.252	/
		Right Tilt	0	802.11a	100.0%	Receiver on	64/5320	14.00	12.95	0.231	0.160	1.27	0.294	/
		Left Tilt Battery3	0	802.11a	100.0%	Receiver on	64/5320	14.00	12.95	0.355	0.100	1.27	0.452	/
		Left Tilt Battery4	0	802.11a	100.0%	Receiver on	64/5320	14.00	12.95	0.415	0.120	1.27	0.529	36
U-NII-2C	Wi-Fi	Left cheek	0	802.11a	100.0%	Receiver on	116/5580	14.00	12.30	0.275	0.021	1.48	0.407	/
		Left Tilt	0	802.11a	100.0%	Receiver on	116/5580	14.00	12.30	0.336	0.041	1.48	0.497	/
		Right cheek	0	802.11a	100.0%	Receiver on	116/5580	14.00	12.30	0.236	0.024	1.48	0.349	/
		Right Tilt	0	802.11a	100.0%	Receiver on	116/5580	14.00	12.30	0.286	0.172	1.48	0.423	/
		Left Tilt Battery3	0	802.11a	100.0%	Receiver on	116/5580	14.00	12.30	0.330	0.020	1.48	0.488	/
		Left Tilt Battery4	0	802.11a	100.0%	Receiver on	116/5580	14.00	12.30	0.281	0.010	1.48	0.416	/
U-NII-3	Wi-Fi	Left Tilt Battery1	0	802.11a	100.0%	Receiver on	116/5580	14.00	12.30	0.312	0.065	1.48	0.461	/
		Left cheek	0	802.11a	100.0%	Receiver on	149/5745	14.00	12.76	0.231	0.181	1.33	0.307	/
		Left Tilt	0	802.11a	100.0%	Receiver on	149/5745	14.00	12.76	0.278	0.097	1.33	0.370	/
		Right cheek	0	802.11a	100.0%	Receiver on	149/5745	14.00	12.76	0.192	0.080	1.33	0.255	/
		Right Tilt	0	802.11a	100.0%	Receiver on	149/5745	14.00	12.76	0.234	0.032	1.33	0.311	/
		Left Tilt Battery3	0	802.11a	100.0%	Receiver on	149/5745	14.00	12.76	0.261	0.020	1.33	0.347	/
Bluetooth	Bluetooth	Left Tilt Battery4	0	802.11a	100.0%	Receiver on	149/5745	14.00	12.76	0.273	0.010	1.33	0.363	/
		Left Tilt Battery1	0	802.11a	100.0%	Receiver on	149/5745	14.00	12.76	0.245	0.025	1.33	0.326	/
		Left cheek	0	DH5	76.0%	Full Power	39/2441	12.50	11.50	0.031	-0.026	1.66	0.051	/
		Left Tilt	0	DH5	76.0%	Full Power	39/2441	12.50	11.50	0.050	-0.031	1.66	0.083	/
		Right cheek	0	DH5	76.0%	Full Power	39/2441	12.50	11.50	0.025	0.057	1.66	0.041	/
		Right Tilt	0	DH5	76.0%	Full Power	39/2441	12.50	11.50	0.025	-0.036	1.66	0.042	/
		Left Tilt Battery3	0	DH5	76.0%	Full Power	39/2441	12.50	11.50	0.110	0.013	1.66	0.182	37
		Left Tilt Battery4	0	DH5	76.0%	Full Power	39/2441	12.50	11.50	0.098	0.010	1.66	0.162	/





		Left Tilt Battery1	0	DH5	76.0%	Full Power	39/2441	12.50	11.50	0.044	0.021	1.66	0.073	/
--	--	-----------------------	---	-----	-------	------------	---------	-------	-------	-------	-------	------	-------	---

Hotspot SAR

Band	Antenna	Test Position	Dist. (mm)	Mode	Power Reduction	RB	offset	Ch./Freq. (MHz)	Tune-up (dBm)	Measured power (dBm)	Measured SAR1g (W/kg)	Power Drift (dB)	Scaling Factor	Report SAR1g (W/kg)	Plot No.	
GSM 850	Low Antenna	Back Side	10	2TX Slots	DSI4	-	-	190/836.6	30.50	29.39	0.432	0.090	1.29	0.558	/	
		Front Side	10	2TX Slots	DSI4	-	-	190/836.6	30.50	29.39	0.259	0.010	1.29	0.334	/	
		Left Edge	10	2TX Slots	DSI2	-	-	190/836.6	30.50	29.39	0.153	0.110	1.29	0.198	/	
		Right Edge	10	2TX Slots	DSI2	-	-	190/836.6	30.50	29.39	0.168	0.050	1.29	0.217	/	
		Top Edge	10	2TX Slots	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	/
		Bottom Edge	10	2TX Slots	DSI4	-	-	190/836.6	30.50	29.39	0.229	0.048	1.29	0.296	/	
	Upper Antenna	Back Side	10	2TX Slots	DSI4	-	-	190/836.6	30.00	28.99	0.374	-0.047	1.26	0.472	/	
		Front Side	10	2TX Slots	DSI4	-	-	190/836.6	30.00	28.99	0.189	-0.050	1.26	0.238	/	
		Left Edge	10	2TX Slots	DSI2	-	-	190/836.6	31.00	30.08	0.098	-0.016	1.24	0.121	/	
		Right Edge	10	2TX Slots	DSI2	-	-	190/836.6	31.00	30.08	0.064	-0.017	1.24	0.079	/	
		Top Edge	10	2TX Slots	DSI4	-	-	190/836.6	30.00	28.99	0.183	0.050	1.26	0.231	/	
		Bottom Edge	10	2TX Slots	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	/
	Low Antenna	Back Side Battery3	10	2TX Slots	DSI4	-	-	190/836.6	30.50	29.39	0.402	0.023	1.29	0.519	/	
		Back Side Battery4	10	2TX Slots	DSI4	-	-	190/836.6	30.50	29.39	0.401	0.021	1.29	0.518	/	
		Back Side Battery1	10	2TX Slots	DSI4	-	-	190/836.6	30.50	29.39	0.452	0.085	1.29	0.584	38	
	GSM 1900	Low Antenna	Back Side	10	2TX Slots	DSI4	-	-	661/1880	26.00	24.50	0.450	-0.100	1.41	0.636	39
			Front Side	10	2TX Slots	DSI4	-	-	661/1880	26.00	24.50	0.163	-0.020	1.41	0.230	/
			Left Edge	10	2TX Slots	DSI2	-	-	661/1880	27.50	26.96	0.094	0.024	1.13	0.107	/
Right Edge			10	2TX Slots	DSI2	-	-	661/1880	27.50	26.96	0.066	0.042	1.13	0.075	/	
Top Edge			10	2TX Slots	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	/
Bottom Edge			10	2TX Slots	DSI4	-	-	661/1880	26.00	24.50	0.437	0.043	1.41	0.617	/	
Upper Antenna		Back Side	10	2TX Slots	DSI4	-	-	661/1880	23.50	21.98	0.182	-0.060	1.42	0.258	/	
		Front Side	10	2TX Slots	DSI4	-	-	661/1880	23.50	21.98	0.091	-0.070	1.42	0.129	/	
		Left Edge	10	2TX Slots	DSI2	-	-	661/1880	28.00	26.54	0.018	0.040	1.40	0.025	/	
		Right Edge	10	2TX Slots	DSI2	-	-	661/1880	28.00	26.54	0.130	0.050	1.40	0.182	/	
		Top Edge	10	2TX Slots	DSI4	-	-	661/1880	23.50	21.98	0.307	-0.040	1.42	0.436	/	
		Bottom Edge	10	2TX Slots	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	/
Low Antenna		Back Side Battery3	10	2TX Slots	DSI4	-	-	661/1880	26.00	24.50	0.449	-0.140	1.41	0.634	/	
		Back Side Battery4	10	2TX Slots	DSI4	-	-	661/1880	26.00	24.50	0.383	0.060	1.41	0.541	/	
		Back Side Battery1	10	2TX Slots	DSI4	-	-	661/1880	26.00	24.50	0.406	0.074	1.41	0.573	/	





WCDMA II	Antenna	Low	Back Side	10	RMC	DSI4	-	-	9400/1880	21.50	20.38	0.589	0.010	1.29	0.762	/	
			Front Side	10	RMC	DSI4	-	-	9400/1880	21.50	20.38	0.261	0.025	1.29	0.338	/	
			Left Edge	10	RMC	DSI2	-	-	9400/1880	25.00	23.19	0.319	-0.070	1.52	0.484	/	
		Right Edge	10	RMC	DSI2	-	-	9400/1880	25.00	23.19	0.049	0.011	1.52	0.074	/		
		Top Edge	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	/		
		Bottom Edge	10	RMC	DSI4	-	-	9400/1880	21.50	20.38	0.641	0.036	1.29	0.830	/		
			10	RMC	DSI4	-	-	9262/1852.4	21.50	20.37	0.652	0.025	1.30	0.846	/		
			10	RMC	DSI4	-	-	9538/1907.6	21.50	20.40	0.532	0.058	1.29	0.685	/		
		Antenna	Upper	Back Side	10	RMC	DSI4	-	-	9400/1880	20.50	20.38	0.445	0.022	1.03	0.457	/
	Front Side			10	RMC	DSI4	-	-	9400/1880	20.50	20.38	0.156	-0.010	1.03	0.161	/	
	Left Edge			10	RMC	DSI2	-	-	9400/1880	25.00	23.27	0.051	0.025	1.49	0.076	/	
	Right Edge		10	RMC	DSI2	-	-	9400/1880	25.00	23.27	0.000	0.000	1.49	0.000	/		
	Top Edge		10	RMC	DSI4	-	-	9400/1880	20.50	20.38	0.785	0.030	1.03	0.807	/		
			10	RMC	DSI4	-	-	9262/1852.4	20.50	20.27	0.799	0.056	1.05	0.842	40		
	Bottom Edge		10	RMC	DSI4	-	-	9538/1907.6	20.50	20.38	0.417	0.028	1.03	0.428	/		
	Bottom Edge	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	/			
	Antenna	Low	Bottom Edge Battery3	10	RMC	DSI4	-	-	9262/1852.4	21.50	20.37	0.596	0.039	1.30	0.773	/	
			Bottom Edge Battery4	10	RMC	DSI4	-	-	9262/1852.4	21.50	20.37	0.599	0.036	1.30	0.777	/	
Bottom Edge Battery1			10	RMC	DSI4	-	-	9262/1852.4	21.50	20.37	0.662	0.052	1.30	0.859	/		
WCDMA IV	Antenna	Low	Back Side	10	RMC	DSI4	-	-	1413/1732.6	21.00	20.00	0.353	0.031	1.26	0.444	/	
			Front Side	10	RMC	DSI4	-	-	1413/1732.6	21.00	20.00	0.156	0.080	1.26	0.196	/	
			Left Edge	10	RMC	DSI2	-	-	1413/1732.6	25.00	23.40	0.259	-0.015	1.45	0.374	/	
			Right Edge	10	RMC	DSI2	-	-	1413/1732.6	25.00	23.40	0.000	0.000	1.45	0.000	/	
			Top Edge	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	/	
			Bottom Edge	10	RMC	DSI4	-	-	1413/1732.6	21.00	20.00	0.574	0.045	1.26	0.723	/	
		Antenna	Upper	Back Side	10	RMC	DSI4	-	-	1413/1732.6	19.50	18.24	0.387	0.120	1.34	0.518	/
				Front Side	10	RMC	DSI4	-	-	1413/1732.6	19.50	18.24	0.162	0.045	1.34	0.216	/
				Left Edge	10	RMC	DSI2	-	-	1413/1732.6	24.50	23.47	0.043	0.036	1.27	0.054	/
	Right Edge			10	RMC	DSI2	-	-	1413/1732.6	24.50	23.47	0.000	0.058	1.27	0.000	/	
	Top Edge			10	RMC	DSI4	-	-	1312/1712.4	19.50	18.18	0.580	0.110	1.36	0.786	/	
	Top Edge			10	RMC	DSI4	-	-	1413/1732.6	19.50	18.24	0.600	0.190	1.34	0.802	/	
	Top Edge			10	RMC	DSI4	-	-	1513/1752.6	19.50	18.29	0.590	0.010	1.32	0.780	/	
	Bottom Edge	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	/			
	Antenna	Upper	Top Edge Battery3	10	RMC	DSI4	-	-	1312/1712.4	20.50	19.38	0.663	0.120	1.29	0.858	41	
			Top Edge Battery4	10	RMC	DSI4	-	-	1312/1712.4	20.50	19.38	0.486	0.024	1.29	0.629	/	
			Top Edge Battery1	10	RMC	DSI4	-	-	1312/1712.4	20.50	19.38	0.572	0.034	1.29	0.740	/	
	WCDMA	Low	Back Side	10	RMC	DSI4	-	-	4183/836.6	24.50	23.17	0.306	0.080	1.36	0.416	/	



V	Antenna	Front Side	10	RMC	DSI4	-	-	4183/836.6	24.50	23.17	0.151	0.025	1.36	0.205	/	
		Left Edge	10	RMC	DSI2	-	-	4183/836.6	25.00	23.18	0.000	0.000	1.52	0.000	/	
		Right Edge	10	RMC	DSI2	-	-	4183/836.6	25.00	23.18	0.089	0.032	1.52	0.135	/	
		Top Edge	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	/	
		Bottom Edge	10	RMC	DSI4	-	-	4183/836.6	24.50	23.17	0.176	0.100	1.36	0.239	/	
	Upper Antenna	Back Side	10	RMC	DSI4	-	-	4183/836.6	24.50	22.93	0.344	0.010	1.44	0.494	/	
		Front Side	10	RMC	DSI4	-	-	4183/836.6	24.50	22.93	0.203	-0.028	1.44	0.291	/	
		Left Edge	10	RMC	DSI2	-	-	4183/836.6	25.00	23.06	0.044	-0.030	1.56	0.069	/	
		Right Edge	10	RMC	DSI2	-	-	4183/836.6	25.00	23.06	0.088	0.041	1.56	0.138	/	
		Top Edge	10	RMC	DSI4	-	-	4183/836.6	24.50	22.93	0.239	0.022	1.44	0.343	/	
	Upper Antenna	Bottom Edge	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	/	
		Back Side Battery3	10	RMC	DSI4	-	-	4183/836.6	24.50	22.93	0.393	0.020	1.44	0.564	42	
		Back Side Battery4	10	RMC	DSI4	-	-	4183/836.6	24.50	22.93	0.368	0.016	1.44	0.528	/	
	LTE 2	Low Antenna	Back Side	10	QPSK	DSI4	1	0	18900/1880	21.00	20.20	0.462	0.051	1.20	0.555	/
				10	QPSK	DSI4	50%	25	19100/1900	21.00	19.78	0.453	-0.030	1.32	0.600	/
Front Side			10	QPSK	DSI4	1	0	18900/1880	21.00	20.20	0.257	0.010	1.20	0.309	/	
			10	QPSK	DSI4	50%	25	19100/1900	21.00	19.78	0.268	0.016	1.32	0.355	/	
Left Edge			10	QPSK	DSI2	1	50	18900/1880	25.00	23.35	0.387	0.019	1.46	0.566	/	
			10	QPSK	DSI2	50%	25	19100/1900	24.00	22.36	0.325	-0.037	1.46	0.474	/	
Right Edge			10	QPSK	DSI2	1	50	18900/1880	25.00	23.35	0.045	0.078	1.46	0.066	/	
			10	QPSK	DSI2	50%	25	19100/1900	24.00	22.36	0.052	0.055	1.46	0.076	/	
Top Edge		10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	/		
		10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	/		
Bottom Edge		10	QPSK	DSI4	1	0	18900/1880	21.00	20.20	0.452	0.014	1.20	0.543	/		
		10	QPSK	DSI4	50%	25	19100/1900	21.00	19.78	0.517	0.022	1.32	0.685	/		
Upper Antenna		Back Side	10	QPSK	DSI4	1	50	19100/1900	20.50	19.48	0.247	0.018	1.26	0.312	/	
			10	QPSK	DSI4	50%	25	19100/1900	20.50	19.41	0.206	0.020	1.29	0.265	/	
		Front Side	10	QPSK	DSI4	1	50	19100/1900	20.50	19.48	0.103	0.031	1.26	0.130	/	
	10		QPSK	DSI4	50%	25	19100/1900	20.50	19.41	0.098	-0.020	1.29	0.126	/		
	Left Edge	10	QPSK	DSI2	1	50	19100/1900	25.00	23.44	0.063	0.048	1.43	0.090	/		
		10	QPSK	DSI2	50%	25	19100/1900	24.00	22.44	0.051	0.022	1.43	0.073	/		
	Right Edge	10	QPSK	DSI2	1	50	19100/1900	25.00	23.44	0.000	0.000	1.43	0.000	/		
		10	QPSK	DSI2	50%	25	19100/1900	24.00	22.44	0.000	0.000	1.43	0.000	/		
Top Edge	10	QPSK	DSI4	1	50	19100/1900	20.50	19.48	0.433	0.069	1.26	0.548	/			
	10	QPSK	DSI4	50%	25	19100/1900	20.50	19.41	0.354	0.032	1.29	0.455	/			
Bottom Edge	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	/			
	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	/			
Low Antenna	Bottom Edge Battery3	10	QPSK	DSI4	50%	25	19100/1900	21.00	19.78	0.426	0.032	1.32	0.564	/		



		Bottom Edge Battery4	10	QPSK	DSI4	50%	25	19100/1900	21.00	19.78	0.627	0.035	1.32	0.830	/	
		Bottom Edge Battery1	10	QPSK	DSI4	50%	25	19100/1900	21.00	19.78	0.546	0.015	1.32	0.723	/	
LTE 5	Low Antenna	Back Side	10	QPSK	DSI4	1	25	20525/836.5	24.50	23.70	0.333	0.030	1.20	0.400	/	
			10	QPSK	DSI4	50%	0	20600/844	23.50	22.79	0.284	0.011	1.18	0.334	/	
		Front Side	10	QPSK	DSI4	1	25	20525/836.5	24.50	23.70	0.148	0.038	1.20	0.178	/	
			10	QPSK	DSI4	50%	0	20600/844	23.50	22.79	0.107	0.016	1.18	0.126	/	
		Left Edge	10	QPSK	DSI2	1	25	20525/836.5	25.00	23.69	0.000	0.000	1.35	0.000	/	
			10	QPSK	DSI2	50%	0	20600/844	24.00	22.73	0.000	0.000	1.34	0.000	/	
		Right Edge	10	QPSK	DSI2	1	25	20525/836.5	25.00	23.69	0.080	-0.020	1.35	0.108	/	
			10	QPSK	DSI2	50%	0	20600/844	24.00	22.73	0.062	-0.015	1.34	0.083	/	
		Top Edge	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	/
			10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	/
		Bottom Edge	10	QPSK	DSI4	1	25	20525/836.5	24.50	23.70	0.197	0.040	1.20	0.237	/	
			10	QPSK	DSI4	50%	0	20600/844	23.50	22.79	0.169	0.024	1.18	0.199	/	
	Upper Antenna	Back Side	10	QPSK	DSI4	1	25	20450/829	23.50	22.57	0.338	0.060	1.24	0.419	/	
			10	QPSK	DSI4	50%	0	20450/829	23.50	22.58	0.328	0.014	1.24	0.405	/	
		Front Side	10	QPSK	DSI4	1	25	20450/829	23.50	22.57	0.201	-0.020	1.24	0.249	/	
			10	QPSK	DSI4	50%	0	20450/829	23.50	22.58	0.189	0.068	1.24	0.234	/	
		Left Edge	10	QPSK	DSI2	1	25	20450/829	25.00	23.55	0.064	-0.015	1.40	0.089	/	
			10	QPSK	DSI2	50%	0	20450/829	24.00	22.60	0.061	0.020	1.38	0.084	/	
		Right Edge	10	QPSK	DSI2	1	25	20450/829	25.00	23.55	0.091	0.078	1.40	0.127	/	
			10	QPSK	DSI2	50%	0	20450/829	24.00	22.60	0.088	-0.012	1.38	0.121	/	
		Top Edge	10	QPSK	DSI4	1	25	20450/829	23.50	22.57	0.203	0.026	1.24	0.251	/	
			10	QPSK	DSI4	50%	0	20450/829	23.50	22.58	0.189	0.070	1.24	0.234	/	
		Bottom Edge	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	/
			10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	/
Upper Antenna	Back Side Battery3	10	QPSK	DSI4	1	25	20450/829	23.50	22.57	0.353	0.015	1.24	0.437	/		
	Back Side Battery4	10	QPSK	DSI4	1	25	20450/829	23.50	22.57	0.354	0.025	1.24	0.439	/		
	Back Side Battery1	10	QPSK	DSI4	1	25	20450/829	23.50	22.57	0.385	0.065	1.24	0.477	43		
LTE 7	Low Antenna	Back Side	10	QPSK	DSI4	1	50	21100/2535	19.50	18.30	0.453	0.085	1.32	0.597	/	
			10	QPSK	DSI4	50%	0	21100/2535	19.50	18.21	0.454	0.063	1.35	0.611	/	
		Front Side	10	QPSK	DSI4	1	50	21100/2535	19.50	18.30	0.150	0.054	1.32	0.197	/	
			10	QPSK	DSI4	50%	0	21100/2535	19.50	18.21	0.150	0.036	1.35	0.201	/	
		Left Edge	10	QPSK	DSI2	1	50	21350/2560	24.50	23.40	0.076	0.085	1.29	0.098	/	
			10	QPSK	DSI2	50%	25	21100/2535	23.50	22.46	0.056	0.045	1.27	0.072	/	
		Right Edge	10	QPSK	DSI2	1	50	21350/2560	24.50	23.40	0.169	0.025	1.29	0.218	/	
			10	QPSK	DSI2	50%	25	21100/2535	23.50	22.46	0.114	0.032	1.27	0.145	/	
		Top Edge	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	/	



LTE 13	Upper Antenna		10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	/	
		Bottom Edge	10	QPSK	DSI4	1	50	21100/2535	19.50	18.30	0.599	0.075	1.32	0.789	/
			10	QPSK	DSI4	50%	0	21100/2535	19.50	18.21	0.588	0.025	1.35	0.791	/
		Back Side	10	QPSK	DSI4	1	50	20850/2510	23.50	22.51	0.323	0.020	1.26	0.406	/
			10	QPSK	DSI4	50%	25	20850/2510	23.50	22.49	0.361	0.100	1.26	0.456	/
		Front Side	10	QPSK	DSI4	1	50	20850/2510	23.50	22.51	0.268	0.020	1.26	0.337	/
			10	QPSK	DSI4	50%	25	20850/2510	23.50	22.49	0.284	0.080	1.26	0.358	/
		Left Edge	10	QPSK	DSI2	1	50	20850/2510	25.00	23.45	0.244	0.029	1.43	0.349	/
			10	QPSK	DSI2	50%	50	20850/2510	24.00	22.48	0.185	0.019	1.42	0.263	/
		Right Edge	10	QPSK	DSI2	1	50	20850/2510	25.00	23.45	0.117	-0.028	1.43	0.167	/
	10		QPSK	DSI2	50%	50	20850/2510	24.00	22.48	0.095	0.050	1.42	0.135	/	
	Top Edge	10	QPSK	DSI4	1	50	20850/2510	23.50	22.51	0.635	-0.040	1.26	0.798	44	
		10	QPSK	DSI4	50%	25	20850/2510	23.50	22.49	0.625	0.170	1.26	0.789	/	
	Bottom Edge	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	/	
		10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	/	
	Upper Antenna	Top Edge Battery3	10	QPSK	DSI4	1	50	20850/2510	23.50	22.51	0.626	0.020	1.26	0.786	/
		Top Edge Battery4	10	QPSK	DSI4	1	50	20850/2510	23.50	22.51	0.574	0.028	1.26	0.721	/
		Top Edge Battery1	10	QPSK	DSI4	1	50	20850/2510	23.50	22.51	0.605	0.087	1.26	0.760	/
	Low Antenna	Back Side	10	QPSK	DSI4	1	25	23230/782	24.50	23.56	0.270	0.050	1.24	0.335	/
			10	QPSK	DSI4	50%	13	23230/782	23.50	22.56	0.248	0.057	1.24	0.308	/
Front Side		10	QPSK	DSI4	1	25	23230/782	24.50	23.56	0.102	0.048	1.24	0.127	/	
		10	QPSK	DSI4	50%	13	23230/782	23.50	22.56	0.089	0.150	1.24	0.111	/	
Left Edge		10	QPSK	DSI2	1	25	23230/782	25.00	23.49	0.000	0.087	1.42	0.000	/	
		10	QPSK	DSI2	50%	13	23230/782	24.00	22.53	0.000	0.000	1.40	0.000	/	
Right Edge		10	QPSK	DSI2	1	25	23230/782	25.00	23.49	0.036	0.000	1.42	0.051	/	
		10	QPSK	DSI2	50%	13	23230/782	24.00	22.53	0.045	0.020	1.40	0.063	/	
Top Edge		10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	/	
		10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	/	
Bottom Edge		10	QPSK	DSI4	1	25	23230/782	24.50	23.56	0.146	-0.090	1.24	0.181	/	
		10	QPSK	DSI4	50%	13	23230/782	23.50	22.56	0.097	0.000	1.24	0.120	/	
Upper Antenna		Back Side	10	QPSK	DSI4	1	25	23230/782	24.50	23.16	0.301	0.010	1.36	0.410	/
			10	QPSK	DSI4	50%	13	23230/782	23.50	22.11	0.248	-0.080	1.38	0.342	/
	Front Side	10	QPSK	DSI4	1	25	23230/782	24.50	23.16	0.168	0.010	1.36	0.229	/	
		10	QPSK	DSI4	50%	13	23230/782	23.50	22.11	0.137	-0.010	1.38	0.189	/	
	Left Edge	10	QPSK	DSI2	1	25	23230/782	25.00	23.12	0.059	0.076	1.54	0.091	/	
		10	QPSK	DSI2	50%	13	23230/782	24.00	22.12	0.053	0.035	1.54	0.082	/	
	Right Edge	10	QPSK	DSI2	1	25	23230/782	25.00	23.12	0.099	0.072	1.54	0.153	/	
		10	QPSK	DSI2	50%	13	23230/782	24.00	22.12	0.077	0.020	1.54	0.119	/	
	Top Edge	10	QPSK	DSI4	1	25	23230/782	24.50	23.16	0.163	-0.010	1.36	0.222	/	
		10	QPSK	DSI4	50%	13	23230/782	23.50	22.11	0.127	0.000	1.38	0.175	/	



	Bottom Edge	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	/
		10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Upper Antenna	Back Side Battery3	10	QPSK	DSI4	1	25	23230/782	24.50	23.16	0.316	0.016	1.36	0.430	/
		Back Side Battery4	10	QPSK	DSI4	1	25	23230/782	24.50	23.16	0.209	0.045	1.36	0.285	/
Back Side Battery1		10	QPSK	DSI4	1	25	23230/782	24.50	23.16	0.326	0.052	1.36	0.444	45	
LTE 26	Low Antenna	Back Side	10	QPSK	DSI4	1	38	26865/831.5	24.50	23.59	0.330	0.070	1.23	0.407	/
			10	QPSK	DSI4	50%	0	26865/831.5	23.50	22.66	0.287	0.020	1.21	0.348	/
		Front Side	10	QPSK	DSI4	1	38	26865/831.5	24.50	23.59	0.140	0.038	1.23	0.173	/
			10	QPSK	DSI4	50%	0	26865/831.5	23.50	22.66	0.124	0.080	1.21	0.150	/
		Left Edge	10	QPSK	DSI2	1	38	26865/831.5	25.00	23.56	0.050	0.052	1.39	0.070	/
			10	QPSK	DSI2	50%	0	26865/831.5	24.00	22.64	0.000	0.034	1.37	0.000	/
		Right Edge	10	QPSK	DSI2	1	38	26865/831.5	25.00	23.56	0.138	-0.080	1.39	0.192	/
			10	QPSK	DSI2	50%	0	26865/831.5	24.00	22.64	0.120	0.029	1.37	0.164	/
	Top Edge	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	/
		10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	/
	Bottom Edge	10	QPSK	DSI4	1	38	26865/831.5	24.50	23.59	0.193	0.040	1.23	0.238	/	
		10	QPSK	DSI4	50%	0	26865/831.5	23.50	22.66	0.158	0.090	1.21	0.192	/	
	Upper Antenna	Back Side	10	QPSK	DSI4	1	38	26865/831.5	24.50	23.43	0.448	0.180	1.28	0.573	46
			10	QPSK	DSI4	50%	0	26865/831.5	23.50	22.50	0.357	0.120	1.26	0.449	/
		Front Side	10	QPSK	DSI4	1	38	26865/831.5	24.50	23.43	0.248	0.061	1.28	0.317	/
			10	QPSK	DSI4	50%	0	26865/831.5	23.50	22.50	0.204	0.080	1.26	0.257	/
		Left Edge	10	QPSK	DSI2	1	38	26865/831.5	25.00	23.44	0.039	-0.025	1.43	0.056	/
			10	QPSK	DSI2	50%	0	26865/831.5	24.00	22.51	0.036	0.039	1.41	0.051	/
		Right Edge	10	QPSK	DSI2	1	38	26865/831.5	25.00	23.44	0.129	0.040	1.43	0.185	/
			10	QPSK	DSI2	50%	0	26865/831.5	24.00	22.51	0.115	0.024	1.41	0.162	/
	Top Edge	10	QPSK	DSI4	1	38	26865/831.5	24.50	23.43	0.261	0.032	1.28	0.334	/	
		10	QPSK	DSI4	50%	0	26865/831.5	23.50	22.50	0.237	-0.180	1.26	0.298	/	
	Bottom Edge	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	/
		10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	/
Upper Antenna	Back Side Battery3	10	QPSK	DSI4	1	38	26865/831.5	24.50	23.43	0.396	0.026	1.28	0.507	/	
	Back Side Battery4	10	QPSK	DSI4	1	38	26865/831.5	24.50	23.43	0.354	0.035	1.28	0.453	/	
	Back Side Battery1	10	QPSK	DSI4	1	38	26865/831.5	24.50	23.43	0.406	0.027	1.28	0.519	/	
LTE 38 TDD	Low Antenna	Back Side	10	QPSK	DSI4	1	50	37850/2580	22.50	20.91	0.364	0.100	1.44	0.525	/
			10	QPSK	DSI4	50%	25	37850/2580	22.50	20.89	0.327	-0.026	1.45	0.473	/
		Front Side	10	0.130	DSI4	1	50	37850/2580	22.50	20.91	0.134	-0.022	1.44	0.193	/
			10	QPSK	DSI4	50%	25	37850/2580	22.50	20.89	0.137	0.011	1.45	0.199	/
		Left Edge	10	QPSK	DSI2	1	50	38150/2610	25.00	23.29	0.064	0.013	1.48	0.094	/



LTE 41 TDD	Upper Antenna	Right Edge	10	QPSK	DSI2	50%	25	37850/2580	24.00	22.25	0.039	0.023	1.50	0.058	/	
			10	QPSK	DSI2	1	50	38150/2610	25.00	23.29	0.074	0.090	1.48	0.110	/	
			10	QPSK	DSI2	50%	25	37850/2580	24.00	22.25	0.071	0.014	1.50	0.106	/	
		Top Edge	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	/
			10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	/
		Bottom Edge	10	QPSK	DSI4	1	50	38150/2610	22.50	20.61	0.520	0.130	1.55	0.804	/	
			10	QPSK	DSI4	1	50	37850/2580	22.50	20.91	0.502	0.012	1.44	0.723	/	
			10	QPSK	DSI4	1	50	38000/2595	22.50	20.89	0.560	-0.167	1.45	0.811	/	
			10	QPSK	DSI4	50%	25	38000/2595	22.50	20.08	0.442	0.038	1.75	0.771	/	
			10	QPSK	DSI4	50%	25	37850/2580	22.50	20.89	0.245	0.120	1.45	0.355	/	
			10	QPSK	DSI4	50%	25	38150/2610	22.50	20.73	0.310	0.010	1.50	0.466	/	
			10	QPSK	DSI4	100%	0	38000/2595	22.50	20.77	0.414	0.010	1.49	0.617	/	
		Lower Antenna	Back Side	10	QPSK	DSI4	1	50	38150/2610	24.50	23.25	0.244	0.069	1.33	0.325	/
				10	QPSK	DSI4	50%	25	37850/2580	23.50	22.21	0.228	0.036	1.35	0.307	/
	Front Side		10	QPSK	DSI4	1	50	38150/2610	24.50	23.25	0.172	0.021	1.33	0.229	/	
			10	QPSK	DSI4	50%	25	37850/2580	23.50	22.21	0.128	0.010	1.35	0.172	/	
	Left Edge		10	QPSK	DSI2	1	50	38150/2610	25.00	23.25	0.081	0.020	1.50	0.121	/	
			10	QPSK	DSI2	50%	25	37850/2580	24.00	22.21	0.056	0.013	1.51	0.085	/	
	Right Edge		10	QPSK	DSI2	1	50	38150/2610	25.00	23.25	0.055	-0.048	1.50	0.082	/	
			10	QPSK	DSI2	50%	25	37850/2580	24.00	22.21	0.051	0.000	1.51	0.077	/	
	Top Edge		10	QPSK	DSI4	1	50	38150/2610	24.50	23.25	0.513	0.160	1.33	0.684	/	
			10	QPSK	DSI4	50%	25	37850/2580	23.50	22.21	0.374	0.070	1.35	0.503	/	
	Bottom Edge	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	/	
		10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	/	
	Low Antenna	Bottom Edge Battery3	10	QPSK	DSI4	1	50	38000/2595	22.50	20.89	0.589	0.028	1.45	0.853	47	
		Bottom Edge Battery4	10	QPSK	DSI4	1	50	38000/2595	22.50	20.89	0.564	0.021	1.45	0.817	/	
		Bottom Edge Battery1	10	QPSK	DSI4	1	50	38000/2595	22.50	20.89	0.516	0.078	1.45	0.748	/	
	LTE 41 TDD	Lower Antenna	Back Side	10	QPSK	DSI4	1	50	39750/2506	22.50	21.40	0.462	0.032	1.29	0.595	/
10				QPSK	DSI4	50%	25	39750/2506	22.50	21.37	0.472	0.036	1.30	0.612	/	
Front Side			10	QPSK	DSI4	1	50	41490/2680	22.50	21.40	0.195	0.016	1.29	0.251	/	
			10	QPSK	DSI4	50%	25	39750/2506	22.50	21.37	0.198	0.048	1.30	0.256	/	
Left Edge			10	QPSK	DSI2	1	50	39750/2506	25.00	23.52	0.038	-0.062	1.41	0.054	/	
			10	QPSK	DSI2	50%	25	39750/2506	24.00	22.46	0.028	0.020	1.43	0.040	/	
Right Edge			10	QPSK	DSI2	1	50	39750/2506	25.00	23.52	0.099	0.069	1.41	0.139	/	
			10	QPSK	DSI2	50%	25	39750/2506	24.00	22.46	0.075	-0.028	1.43	0.107	/	
Top Edge			10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	/
			10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	/
Bottom Edge			10	QPSK	DSI4	1	50	39750/2506	22.50	21.40	0.636	-0.014	1.29	0.819	/	
Bottom Edge SIM2	10	QPSK	DSI4	1	50	40185/2549.5	22.50	21.23	0.642	0.022	1.34	0.861	/			



		Bottom Edge	10	QPSK	DSI4	1	50	40185/2549.5	22.50	21.23	0.621	0.015	1.34	0.832	/
		Bottom Edge 3+32G	10	QPSK	DSI4	1	50	40185/2549.5	22.50	21.23	0.605	0.032	1.34	0.811	/
		Bottom Edge 3+64G	10	QPSK	DSI4	1	50	40185/2549.5	22.50	21.23	0.630	-0.150	1.34	0.844	/
		Bottom Edge 4+64G	10	QPSK	DSI4	1	50	40185/2549.5	22.50	21.23	0.628	0.025	1.34	0.841	/
		Bottom Edge	10	QPSK	DSI4	1	50	41490/2680	22.50	20.84	0.396	0.049	1.47	0.580	/
		Bottom Edge	10	QPSK	DSI4	50%	25	39750/2506	22.50	21.37	0.644	0.010	1.30	0.835	/
		Bottom Edge	10	QPSK	DSI4	50%	25	40185/2549.5	22.50	21.23	0.634	0.017	1.34	0.850	/
		Bottom Edge	10	QPSK	DSI4	50%	25	41490/2680	22.50	20.88	0.446	0.022	1.45	0.648	/
		Bottom Edge	10	QPSK	DSI4	100%	0	39750/2506	22.50	21.24	0.589	0.012	1.34	0.787	/
		Upper Antenna	Back Side	10	QPSK	DSI4	1	50	39750/2506	23.50	22.57	0.227	-0.030	1.24	0.281
10	QPSK			DSI4	50%	25	39750/2506	23.50	22.46	0.221	0.028	1.27	0.281	/	
Front Side	10		QPSK	DSI4	1	50	39750/2506	23.50	22.57	0.150	0.021	1.24	0.186	/	
	10		QPSK	DSI4	50%	25	39750/2506	23.50	22.46	0.141	0.018	1.27	0.179	/	
Left Edge	10		QPSK	DSI2	1	50	39750/2506	25.00	23.50	0.101	0.010	1.41	0.143	/	
	10		QPSK	DSI2	50%	25	39750/2506	24.00	22.49	0.080	0.012	1.42	0.113	/	
Right Edge	10		QPSK	DSI2	1	50	39750/2506	25.00	23.50	0.058	-0.060	1.41	0.082	/	
	10		QPSK	DSI2	50%	25	39750/2506	24.00	22.49	0.051	0.019	1.42	0.072	/	
Top Edge	10		QPSK	DSI4	1	50	39750/2506	23.50	22.57	0.301	0.097	1.24	0.373	/	
	10		QPSK	DSI4	50%	25	39750/2506	23.50	22.46	0.323	0.023	1.27	0.410	/	
Bottom Edge	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	/		
	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	/		
Low Antenna	Bottom Edge Battery3	10	QPSK	DSI4	1	50	40185/2549.5	22.50	21.23	0.649	0.036	1.34	0.869	/	
	Bottom Edge Battery4	10	QPSK	DSI4	1	50	40185/2549.5	22.50	21.23	0.702	0.027	1.34	0.940	48	
	Bottom Edge Battery1	10	QPSK	DSI4	1	50	40185/2549.5	22.50	21.23	0.611	-0.019	1.34	0.819	/	
LTE 66	Antenna	Back Side	10	QPSK	DSI4	1	50	132322/1745	21.00	20.03	0.358	0.024	1.25	0.448	/
			10	QPSK	DSI4	50%	0	132322/1745	21.00	19.84	0.336	0.018	1.31	0.439	/
		Front Side	10	QPSK	DSI4	1	50	132322/1745	21.00	20.03	0.180	0.033	1.25	0.225	/
			10	QPSK	DSI4	50%	0	132322/1745	21.00	19.84	0.165	-0.100	1.31	0.216	/
		Left Edge	10	QPSK	DSI2	1	50	132322/1745	25.00	23.34	0.223	0.025	1.47	0.327	/
			10	QPSK	DSI2	50%	25	132572/1770	24.00	22.44	0.176	-0.090	1.43	0.252	/
		Right Edge	10	QPSK	DSI2	1	50	132322/1745	25.00	23.34	0.059	0.030	1.47	0.086	/
			10	QPSK	DSI2	50%	25	132572/1770	24.00	22.44	0.053	0.042	1.43	0.076	/
		Top Edge	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	/
			10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	/
Bottom Edge	10	QPSK	DSI4	1	50	132322/1745	21.00	20.03	0.605	0.035	1.25	0.756	/		
	10	QPSK	DSI4	50%	0	132322/1745	21.00	19.84	0.572	0.060	1.31	0.747	/		
Upper	Back Side	10	QPSK	DSI4	1	50	132322/1745	20.50	19.92	0.404	-0.100	1.14	0.462	/	





Antenna	Front Side	10	QPSK	DSI4	50%	0	132322/1745	20.50	19.61	0.410	0.024	1.23	0.503	/	
		10	QPSK	DSI4	1	50	132322/1745	20.50	19.92	0.176	-0.160	1.14	0.201	/	
		10	QPSK	DSI4	50%	0	132322/1745	20.50	19.61	0.176	0.038	1.23	0.216	/	
		Left Edge	10	QPSK	DSI2	1	50	132072/1720	24.50	23.53	0.101	0.010	1.25	0.126	/
			10	QPSK	DSI2	50%	0	132322/1745	23.50	22.55	0.069	-0.090	1.24	0.086	/
		Right Edge	10	QPSK	DSI2	1	50	132072/1720	24.50	23.53	0.042	0.022	1.25	0.053	/
			10	QPSK	DSI2	50%	0	132322/1745	23.50	22.55	0.036	0.048	1.24	0.045	/
		Top Edge	10	QPSK	DSI4	1	50	132322/1745	20.50	19.92	0.557	0.015	1.14	0.637	/
	10		QPSK	DSI4	50%	0	132322/1745	20.50	19.61	0.574	0.036	1.23	0.705	/	
	Bottom Edge	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	/	
		10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	/	
	Low Antenna	Bottom Edge Battery3	10	QPSK	DSI4	1	50	132322/1745	21.00	20.03	0.606	0.032	1.25	0.758	/
		Bottom Edge Battery4	10	QPSK	DSI4	1	50	132322/1745	21.00	20.03	0.478	0.060	1.25	0.598	/
		Bottom Edge Battery1	10	QPSK	DSI4	1	50	132322/1745	21.00	20.03	0.624	0.037	1.25	0.780	/

Band	Antenna	Test Position	Dist. (mm)	Mode	Duty Cycle	Power Reduction	Ch./Freq. (MHz)	Tune-up (dBm)	Measured power (dBm)	Measured SAR1g (W/kg)	Power Drift (dB)	Scaling Factor	Report SAR1g (W/kg)	Plot No.	
2.4G	Wi-Fi	Back Side	10	802.11b	98.0%	Receiver off	11/2462	18.50	17.57	0.232	0.055	1.26	0.293	49	
		Front Side	10	802.11b	98.0%	Receiver off	11/2462	18.50	17.57	0.186	-0.090	1.26	0.235	/	
		Left Edge	10	802.11b	98.0%	Receiver off	11/2462	18.50	17.57	0.000	0.108	1.26	0.000	/	
		Right Edge	10	802.11b	98.0%	Receiver off	11/2462	18.50	17.57	0.225	0.150	1.26	0.284	/	
		Top Edge	10	802.11b	98.0%	Receiver off	11/2462	18.50	17.57	0.122	0.190	1.26	0.154	/	
		Bottom Edge	10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/
		Back Side Battery3	10	802.11b	98.0%	Receiver off	11/2462	18.50	17.57	0.214	0.016	1.26	0.271	/	
		Back Side Battery4	10	802.11b	98.0%	Receiver off	11/2462	18.50	17.57	0.126	0.024	1.26	0.159	/	
		Back Side Battery1	10	802.11b	98.0%	Receiver off	11/2462	18.50	17.57	0.224	0.030	1.26	0.283	/	
U-NII-1	Wi-Fi	Back Side	10	802.11a	100.0%	Receiver off	44/5220	16.50	15.26	0.484	0.036	1.33	0.644	/	
		Front Side	10	802.11a	100.0%	Receiver off	44/5220	16.50	15.26	0.127	0.016	1.33	0.169	/	
		Left Edge	10	802.11a	100.0%	Receiver off	44/5220	16.50	15.26	0.082	-0.010	1.33	0.109	/	
		Right Edge	10	802.11a	100.0%	Receiver off	44/5220	16.50	15.26	0.253	0.000	1.33	0.337	/	
		Top Edge	10	802.11a	100.0%	Receiver off	44/5220	16.50	15.26	0.521	-0.040	1.33	0.693	50	
		Bottom Edge	10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/
		Top Edge Battery3	10	802.11a	100.0%	Receiver off	44/5220	16.50	15.26	0.428	0.046	1.33	0.569	/	
		Top Edge Battery4	10	802.11a	100.0%	Receiver off	44/5220	16.50	15.26	0.506	0.058	1.33	0.673	/	





		Top Edge Battery1	10	802.11a	100.0%	Receiver off	44/5220	16.50	15.26	0.489	0.036	1.33	0.651	/	
U-NII-3	Wi-Fi	Back Side	10	802.11a	100.0%	Receiver off	149/5745	16.50	15.11	0.287	0.020	1.38	0.395	/	
		Front Side	10	802.11a	100.0%	Receiver off	149/5745	16.50	15.11	0.112	-0.010	1.38	0.154	/	
		Left Edge	10	802.11a	100.0%	Receiver off	149/5745	16.50	15.11	0.051	0.034	1.38	0.070	/	
		Right Edge	10	802.11a	100.0%	Receiver off	149/5745	16.50	15.11	0.189	0.080	1.38	0.260	/	
		Top Edge	10	802.11a	100.0%	Receiver off	149/5745	16.50	15.11	0.273	0.044	1.38	0.376	/	
		Bottom Edge	10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/
		Back Side Battery3	10	802.11a	100.0%	Receiver off	149/5745	16.50	15.11	0.235	0.064	1.38	0.324	/	
		Back Side Battery4	10	802.11a	100.0%	Receiver off	149/5745	16.50	15.11	0.320	0.023	1.38	0.441	/	
		Back Side Battery1	10	802.11a	100.0%	Receiver off	149/5745	16.50	15.11	0.305	0.054	1.38	0.420	/	
Bluetooth	Bluetooth	Back Side	10	DH5	76.0%	Full Power	39/2441	12.50	11.50	0.012	0.130	1.66	0.020	/	
		Front Side	10	DH5	76.0%	Full Power	39/2441	12.50	11.50	0.005	0.019	1.66	0.008	/	
		Left Edge	10	DH5	76.0%	Full Power	39/2441	12.50	11.50	0.000	0.030	1.66	0.000	/	
		Right Edge	10	DH5	76.0%	Full Power	39/2441	12.50	11.50	0.000	-0.029	1.66	0.000	/	
		Top Edge	10	DH5	76.0%	Full Power	39/2441	12.50	11.50	0.008	0.026	1.66	0.013	/	
		Bottom Edge	10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/
		Back Side Battery3	10	DH5	76.0%	Full Power	39/2441	12.50	11.50	0.074	0.065	1.66	0.123	/	
		Back Side Battery4	10	DH5	76.0%	Full Power	39/2441	12.50	11.50	0.076	0.036	1.66	0.126	51	
		Back Side Battery1	10	DH5	76.0%	Full Power	39/2441	12.50	11.50	0.009	0.014	1.66	0.015	/	



Product-specific 10g SAR Evaluation

Band	Antenna	Test Position	Mode	Power Reduction	RB	offset	Ch./Freq. (MHz)	Tune-up (dBm)	Measured power (dBm)	Measured SAR1g (W/kg)	Power Drift (dB)	Scaling Factor	Report SAR1g (W/kg)	0mm SAR
GSM850	Low Antenna	Back Side	2TX Slots	DSI4	-	-	190/836.6	30.50	30.50	0.432	0.090	1.00	0.432	NO
		Front Side	2TX Slots	DSI4	-	-	190/836.6	30.50	30.50	0.259	0.010	1.00	0.259	NO
		Left Edge	2TX Slots	DSI2	-	-	190/836.6	30.50	30.50	0.153	0.110	1.00	0.153	NO
		Right Edge	2TX Slots	DSI2	-	-	190/836.6	30.50	30.50	0.168	0.050	1.00	0.168	NO
		Top Edge	2TX Slots	N/A	N/A	N/A	N/A	30.50	N/A	N/A	N/A	NA	NA	NO
		Bottom Edge	2TX Slots	DSI4	-	-	190/836.6	30.50	30.50	0.229	0.048	1.00	0.229	NO
	Upper Antenna	Back Side	2TX Slots	DSI4	-	-	190/836.6	31.00	30.00	0.374	-0.047	1.26	0.471	NO
		Front Side	2TX Slots	DSI4	-	-	190/836.6	31.00	30.00	0.189	-0.050	1.26	0.238	NO
		Left Edge	2TX Slots	DSI2	-	-	190/836.6	31.00	31.00	0.098	-0.016	1.00	0.098	NO
		Right Edge	2TX Slots	DSI2	-	-	190/836.6	31.00	31.00	0.064	-0.017	1.00	0.064	NO
		Top Edge	2TX Slots	DSI4	-	-	190/836.6	31.00	30.00	0.183	0.050	1.26	0.230	NO
		Bottom Edge	2TX Slots	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NA	NA	NO
GSM1900	Low Antenna	Back Side	2TX Slots	DSI4	-	-	661/1880	27.50	26.00	0.450	-0.100	1.41	0.636	NO
		Front Side	2TX Slots	DSI4	-	-	661/1880	27.50	26.00	0.163	-0.020	1.41	0.230	NO
		Left Edge	2TX Slots	DSI2	-	-	661/1880	27.50	27.50	0.094	0.024	1.00	0.094	NO
		Right Edge	2TX Slots	DSI2	-	-	661/1880	27.50	27.50	0.066	0.042	1.00	0.066	NO
		Top Edge	2TX Slots	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NA	NA	NO
		Bottom Edge	2TX Slots	DSI4	-	-	661/1880	27.50	26.00	0.437	0.043	1.41	0.617	NO
	Upper Antenna	Back Side	2TX Slots	DSI4	-	-	661/1880	28.00	23.50	0.182	-0.060	2.82	0.513	NO
		Front Side	2TX Slots	DSI4	-	-	661/1880	28.00	23.50	0.091	-0.070	2.82	0.256	NO
		Left Edge	2TX Slots	DSI2	-	-	661/1880	28.00	28.00	0.018	0.040	1.00	0.018	NO
		Right Edge	2TX Slots	DSI2	-	-	661/1880	28.00	28.00	0.130	0.050	1.00	0.130	NO
		Top Edge	2TX Slots	DSI4	-	-	661/1880	28.00	23.50	0.307	-0.040	2.82	0.865	NO
		Bottom Edge	2TX Slots	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NA	NA	NO
WCDMA II	Low Antenna	Back Side	RMC	DSI4	-	-	9400/1880	25.00	21.50	0.589	0.010	2.24	1.319	YES
		Front Side	RMC	DSI4	-	-	9400/1880	25.00	21.50	0.261	0.025	2.24	0.584	NO
		Left Edge	RMC	DSI2	-	-	9400/1880	25.00	25.00	0.319	-0.070	1.00	0.319	NO
		Right Edge	RMC	DSI2	-	-	9400/1880	25.00	25.00	0.049	0.011	1.00	0.049	NO
		Top Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NA	NA	NO
		Bottom Edge	RMC	DSI4	-	-	9400/1880	25.00	21.50	0.641	0.036	2.24	1.435	YES
	RMC		DSI4	-	-	9262/1852.4	25.00	21.50	0.652	0.025	2.24	1.460	YES	
	RMC		DSI4	-	-	9538/1907.6	25.00	21.50	0.532	0.058	2.24	1.191	NO	
	Upper Antenna	Back Side	RMC	DSI4	-	-	9400/1880	25.00	20.50	0.445	0.022	2.82	1.254	YES
		Front Side	RMC	DSI4	-	-	9400/1880	25.00	20.50	0.156	-0.010	2.82	0.440	NO
		Left Edge	RMC	DSI2	-	-	9400/1880	25.00	25.00	0.051	0.025	1.00	0.051	NO
		Right Edge	RMC	DSI2	-	-	9400/1880	25.00	25.00	0.000	0.000	1.00	0.000	NO
Top Edge		RMC	DSI4	-	-	9400/1880	25.00	20.50	0.785	0.030	2.82	2.212	YES	
		RMC	DSI4	-	-	9262/1852.4	25.00	20.50	0.801	0.056	2.82	2.258	YES	
	RMC	DSI4	-	-	9538/1907.6	25.00	20.50	0.417	0.028	2.82	1.174	NO		



		Bottom Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NA	NA	NO
WCDMA IV	Low Antenna	Back Side	RMC	DSI4	-	-	1413/1732.6	25.00	21.00	0.353	0.031	2.51	0.887	NO
		Front Side	RMC	DSI4	-	-	1413/1732.6	25.00	21.00	0.156	0.080	2.51	0.392	NO
		Left Edge	RMC	DSI2	-	-	1413/1732.6	25.00	25.00	0.259	-0.015	1.00	0.259	NO
		Right Edge	RMC	DSI2	-	-	1413/1732.6	25.00	25.00	0.000	0.000	1.00	0.000	NO
		Top Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NA	NA	NO
		Bottom Edge	RMC	DSI4	-	-	1413/1732.6	25.00	21.00	0.574	0.045	2.51	1.442	YES
	Upper Antenna	Back Side	RMC	DSI4	-	-	1413/1732.6	24.50	19.50	0.387	0.074	3.16	1.225	YES
		Front Side	RMC	DSI4	-	-	1413/1732.6	24.50	19.50	0.162	0.085	3.16	0.511	NO
		Left Edge	RMC	DSI2	-	-	1413/1732.6	24.50	24.50	0.043	0.025	1.00	0.043	NO
		Right Edge	RMC	DSI2	-	-	1413/1732.6	24.50	24.50	0.000	0.036	1.00	0.000	NO
		Top Edge	RMC	DSI4	-	-	1413/1732.6	24.50	19.50	0.600	0.150	3.16	1.897	YES
		Bottom Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NA	NA	NO
WCDMA V	Low Antenna	Back Side	RMC	DSI4	-	-	4183/836.6	25.00	24.50	0.306	0.080	1.12	0.343	NO
		Front Side	RMC	DSI4	-	-	4183/836.6	25.00	24.50	0.151	0.025	1.12	0.169	NO
		Left Edge	RMC	DSI2	-	-	4183/836.6	25.00	25.00	0.000	0.000	1.00	0.000	NO
		Right Edge	RMC	DSI2	-	-	4183/836.6	25.00	25.00	0.089	0.032	1.00	0.089	NO
		Top Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NA	NA	NO
		Bottom Edge	RMC	DSI4	-	-	4183/836.6	25.00	24.50	0.176	0.100	1.12	0.197	NO
	Upper Antenna	Back Side	RMC	DSI4	-	-	4183/836.6	25.00	24.50	0.344	0.010	1.12	0.386	NO
		Front Side	RMC	DSI4	-	-	4183/836.6	25.00	24.50	0.203	-0.028	1.12	0.228	NO
		Left Edge	RMC	DSI2	-	-	4183/836.6	25.00	25.00	0.044	-0.030	1.00	0.044	NO
		Right Edge	RMC	DSI2	-	-	4183/836.6	25.00	25.00	0.088	0.041	1.00	0.088	NO
		Top Edge	RMC	DSI4	-	-	4183/836.6	25.00	24.50	0.239	0.022	1.12	0.268	NO
		Bottom Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NA	NA	NO
LTE 2	Low Antenna	Back Side	QPSK	DSI4	1	0	18900/1880	25.00	21.00	0.462	0.051	2.51	1.160	NO
			QPSK	DSI4	50%	25	19100/1900	24.00	21.00	0.453	-0.030	2.00	0.904	NO
		Front Side	QPSK	DSI4	1	0	18900/1880	25.00	21.00	0.257	0.010	2.51	0.646	NO
			QPSK	DSI4	50%	25	19100/1900	24.00	21.00	0.268	0.016	2.00	0.535	NO
		Left Edge	QPSK	DSI2	1	50	18900/1880	25.00	25.00	0.387	0.019	1.00	0.387	NO
			QPSK	DSI2	50%	25	19100/1900	24.00	24.00	0.325	-0.037	1.00	0.325	NO
		Right Edge	QPSK	DSI2	1	50	18900/1880	25.00	25.00	0.045	0.078	1.00	0.045	NO
			QPSK	DSI2	50%	25	19100/1900	24.00	24.00	0.052	0.055	1.00	0.052	NO
		Top Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NA	NA	NO
			N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NA	NA	NO
		Bottom Edge	QPSK	DSI4	1	0	18900/1880	25.00	21.00	0.452	0.014	2.51	1.135	NO
			QPSK	DSI4	50%	25	19100/1900	24.00	21.00	0.517	0.022	2.00	1.032	NO
	Upper Antenna	Back Side	QPSK	DSI4	1	50	19100/1900	25.00	20.50	0.247	0.018	2.82	0.696	NO
			QPSK	DSI4	50%	25	19100/1900	24.00	20.50	0.206	0.020	2.24	0.461	NO
		Front Side	QPSK	DSI4	1	50	19100/1900	25.00	20.50	0.103	0.031	2.82	0.290	NO
			QPSK	DSI4	50%	25	19100/1900	24.00	20.50	0.098	-0.020	2.24	0.219	NO
		Left Edge	QPSK	DSI2	1	50	19100/1900	25.00	25.00	0.063	0.048	1.00	0.063	NO
			QPSK	DSI2	50%	25	19100/1900	24.00	24.00	0.051	0.022	1.00	0.051	NO



		Right Edge	QPSK	DSI2	1	50	19100/1900	25.00	25.00	0.000	0.000	1.00	0.000	NO
			QPSK	DSI2	50%	25	19100/1900	24.00	24.00	0.000	0.000	1.00	0.000	NO
		Top Edge	QPSK	DSI4	1	50	19100/1900	25.00	20.50	0.433	0.069	2.82	1.220	YES
			QPSK	DSI4	50%	25	19100/1900	24.00	20.50	0.354	0.032	2.24	0.793	NO
		Bottom Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NA	NA	NO
			N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NA	NA	NO
LTE 5	Low Antenna	Back Side	QPSK	DSI4	1	25	20525/836.5	25.00	24.50	0.333	0.030	1.12	0.374	NO
			QPSK	DSI4	50%	0	20600/844	24.00	23.50	0.284	0.011	1.12	0.319	NO
		Front Side	QPSK	DSI4	1	25	20525/836.5	25.00	24.50	0.148	0.038	1.12	0.166	NO
			QPSK	DSI4	50%	0	20600/844	24.00	23.50	0.107	0.016	1.12	0.120	NO
		Left Edge	QPSK	DSI2	1	25	20525/836.5	25.00	25.00	0.000	0.000	1.00	0.000	NO
			QPSK	DSI2	50%	0	20600/844	24.00	24.00	0.000	0.000	1.00	0.000	NO
		Right Edge	QPSK	DSI2	1	25	20525/836.5	25.00	25.00	0.080	-0.020	1.00	0.080	NO
			QPSK	DSI2	50%	0	20600/844	24.00	24.00	0.062	-0.015	1.00	0.062	NO
		Top Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NA	NA	NO
			N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NA	NA	NO
		Bottom Edge	QPSK	DSI4	1	25	20525/836.5	25.00	24.50	0.197	0.040	1.12	0.221	NO
			QPSK	DSI4	50%	0	20600/844	24.00	23.50	0.169	0.024	1.12	0.190	NO
	Upper Antenna	Back Side	QPSK	DSI4	1	25	20450/829	25.00	23.50	0.338	0.060	1.41	0.477	NO
			QPSK	DSI4	50%	0	20450/829	24.00	23.50	0.328	0.014	1.12	0.368	NO
		Front Side	QPSK	DSI4	1	25	20450/829	25.00	23.50	0.201	-0.020	1.41	0.284	NO
			QPSK	DSI4	50%	0	20450/829	24.00	23.50	0.189	0.068	1.12	0.212	NO
		Left Edge	QPSK	DSI2	1	25	20450/829	25.00	25.00	0.064	-0.015	1.00	0.064	NO
			QPSK	DSI2	50%	0	20450/829	24.00	24.00	0.061	0.020	1.00	0.061	NO
		Right Edge	QPSK	DSI2	1	25	20450/829	25.00	25.00	0.091	0.078	1.00	0.091	NO
			QPSK	DSI2	50%	0	20450/829	24.00	24.00	0.088	-0.012	1.00	0.088	NO
		Top Edge	QPSK	DSI4	1	25	20450/829	25.00	23.50	0.203	0.026	1.41	0.287	NO
			QPSK	DSI4	50%	0	20450/829	24.00	23.50	0.189	0.070	1.12	0.212	NO
		Bottom Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NA	NA	NO
			N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NA	NA	NO
LTE 7	Low Antenna	Back Side	QPSK	DSI4	1	50	21350/2560	24.50	19.50	0.453	0.085	3.16	1.432	YES
			QPSK	DSI4	50%	50	21100/2535	23.50	19.50	0.454	0.063	2.51	1.141	NO
		Front Side	QPSK	DSI4	1	50	21350/2560	24.50	19.50	0.150	0.054	3.16	0.473	NO
			QPSK	DSI4	50%	50	21100/2535	23.50	19.50	0.150	0.036	2.51	0.376	NO
		Left Edge	QPSK	DSI2	1	50	21350/2560	24.50	24.50	0.076	0.085	1.00	0.076	NO
			QPSK	DSI2	50%	0	21100/2535	23.50	23.50	0.056	0.045	1.00	0.056	NO
		Right Edge	QPSK	DSI2	1	50	21350/2560	24.50	24.50	0.169	0.025	1.00	0.169	NO
			QPSK	DSI2	50%	0	21100/2535	23.50	23.50	0.114	0.032	1.00	0.114	NO
		Top Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NA	NA	NO
			N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NA	NA	NO
		Bottom Edge	QPSK	DSI4	1	50	21350/2560	24.50	19.50	0.599	0.075	3.16	1.893	YES
			QPSK	DSI4	50%	50	21100/2535	23.50	19.50	0.588	0.025	2.51	1.477	YES
Upper	Back Side	QPSK	DSI4	1	50	20850/2510	25.00	23.50	0.323	0.020	1.41	0.456	NO	



	Antenna		QPSK	DSI4	50%	25	20850/2510	24.00	23.50	0.361	0.100	1.12	0.405	NO		
		Front Side	QPSK	DSI4	1	50	20850/2510	25.00	23.50	0.268	0.020	1.41	0.379	NO		
			QPSK	DSI4	50%	25	20850/2510	24.00	23.50	0.284	0.080	1.12	0.319	NO		
		Left Edge	QPSK	DSI2	1	50	20850/2510	25.00	25.00	0.244	0.029	1.00	0.244	NO		
			QPSK	DSI2	50%	50	20850/2510	24.00	24.00	0.185	0.019	1.00	0.185	NO		
		Right Edge	QPSK	DSI2	1	50	20850/2510	25.00	25.00	0.117	-0.028	1.00	0.117	NO		
			QPSK	DSI2	50%	50	20850/2510	24.00	24.00	0.095	0.050	1.00	0.095	NO		
		Top Edge	QPSK	DSI4	1	50	20850/2510	25.00	23.50	0.635	-0.040	1.41	0.897	NO		
			QPSK	DSI4	50%	25	20850/2510	24.00	23.50	0.625	0.170	1.12	0.701	NO		
		Bottom Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NA	NA	NO		
			N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NA	NA	NO		
		LTE 13	Low Antenna	Back Side	QPSK	DSI4	1	25	23230/782	25.00	24.50	0.270	0.050	1.12	0.303	NO
					QPSK	DSI4	50%	13	23230/782	24.00	23.50	0.248	0.057	1.12	0.278	NO
				Front Side	QPSK	DSI4	1	25	23230/782	25.00	24.50	0.102	0.048	1.12	0.114	NO
QPSK	DSI4				50%	13	23230/782	24.00	23.50	0.089	0.150	1.12	0.100	NO		
Left Edge	QPSK			DSI2	1	25	23230/782	25.00	25.00	0.000	0.087	1.00	0.000	NO		
	QPSK			DSI2	50%	13	23230/782	24.00	24.00	0.000	0.000	1.00	0.000	NO		
Right Edge	QPSK			DSI2	1	25	23230/782	25.00	25.00	0.036	0.000	1.00	0.036	NO		
	QPSK			DSI2	50%	13	23230/782	24.00	24.00	0.045	0.020	1.00	0.045	NO		
Top Edge	N/A			N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NA	NA	NO		
	N/A			N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NA	NA	NO		
Bottom Edge	QPSK			DSI4	1	25	23230/782	25.00	24.50	0.146	-0.090	1.12	0.164	NO		
	QPSK			DSI4	50%	13	23230/782	24.00	23.50	0.097	0.000	1.12	0.109	NO		
Upper Antenna	Back Side			QPSK	DSI4	1	25	23230/782	25.00	24.50	0.301	0.010	1.12	0.338	NO	
				QPSK	DSI4	50%	13	23230/782	24.00	23.50	0.248	-0.080	1.12	0.278	NO	
	Front Side		QPSK	DSI4	1	25	23230/782	25.00	24.50	0.168	0.010	1.12	0.188	NO		
			QPSK	DSI4	50%	13	23230/782	24.00	23.50	0.137	-0.010	1.12	0.154	NO		
	Left Edge		QPSK	DSI2	1	25	23230/782	25.00	25.00	0.059	0.076	1.00	0.059	NO		
			QPSK	DSI2	50%	13	23230/782	24.00	24.00	0.053	0.035	1.00	0.053	NO		
	Right Edge		QPSK	DSI2	1	25	23230/782	25.00	25.00	0.099	0.072	1.00	0.099	NO		
			QPSK	DSI2	50%	13	23230/782	24.00	24.00	0.077	0.020	1.00	0.077	NO		
	Top Edge		QPSK	DSI4	1	25	23230/782	25.00	24.50	0.163	-0.010	1.12	0.183	NO		
			QPSK	DSI4	50%	13	23230/782	24.00	23.50	0.127	0.000	1.12	0.142	NO		
	Bottom Edge		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NA	NA	NO		
			N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NA	NA	NO		
	LTE 26		Low Antenna	Back Side	QPSK	DSI4	1	38	26865/831.5	25.00	24.50	0.330	0.070	1.12	0.370	NO
					QPSK	DSI4	50%	0	26865/831.5	24.00	23.50	0.287	0.020	1.12	0.322	NO
Front Side				QPSK	DSI4	1	38	26865/831.5	25.00	24.50	0.140	0.038	1.12	0.157	NO	
				QPSK	DSI4	50%	0	26865/831.5	24.00	23.50	0.124	0.080	1.12	0.139	NO	
Left Edge		QPSK		DSI2	1	38	26865/831.5	25.00	25.00	0.050	0.052	1.00	0.050	NO		
		QPSK		DSI2	50%	0	26865/831.5	24.00	24.00	0.000	0.034	1.00	0.000	NO		
Right Edge		QPSK		DSI2	1	38	26865/831.5	25.00	25.00	0.138	-0.080	1.00	0.138	NO		
		QPSK		DSI2	50%	0	26865/831.5	24.00	24.00	0.120	0.029	1.00	0.120	NO		



LTE 38 TDD	Upper Antenna	Top Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NA	NA	NO			
			N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NA	NA	NO		
		Bottom Edge	QPSK	DSI4	1	38	26865/831.5	25.00	24.50	0.193	0.040	1.12	0.217	NO		
			QPSK	DSI4	50%	0	26865/831.5	24.00	23.50	0.158	0.090	1.12	0.177	NO		
		Back Side	QPSK	DSI4	1	38	26865/831.5	25.00	24.50	0.448	0.180	1.12	0.503	NO		
			QPSK	DSI4	50%	0	26865/831.5	24.00	23.50	0.357	0.120	1.12	0.401	NO		
		Front Side	QPSK	DSI4	1	38	26865/831.5	25.00	24.50	0.248	0.061	1.12	0.278	NO		
			QPSK	DSI4	50%	0	26865/831.5	24.00	23.50	0.204	0.080	1.12	0.229	NO		
		Left Edge	QPSK	DSI2	1	38	26865/831.5	25.00	25.00	0.039	-0.025	1.00	0.039	NO		
			QPSK	DSI2	50%	0	26865/831.5	24.00	24.00	0.036	0.039	1.00	0.036	NO		
		Right Edge	QPSK	DSI2	1	38	26865/831.5	25.00	25.00	0.129	0.040	1.00	0.129	NO		
			QPSK	DSI2	50%	0	26865/831.5	24.00	24.00	0.115	0.024	1.00	0.115	NO		
		Top Edge	QPSK	DSI4	1	38	26865/831.5	25.00	24.50	0.261	0.032	1.12	0.293	NO		
			QPSK	DSI4	50%	0	26865/831.5	24.00	23.50	0.237	-0.180	1.12	0.266	NO		
		Bottom Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NA	NA	NO		
			N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NA	NA	NO		
		LTE 38 TDD	Low Antenna	Back Side	QPSK	DSI4	1	50	38150/2610	25.00	22.50	0.364	0.100	1.78	0.648	NO
					QPSK	DSI4	50%	25	37850/2580	24.00	22.50	0.327	-0.026	1.41	0.461	NO
Front Side	0.130			DSI4	1	50	38150/2610	25.00	22.50	0.134	-0.022	1.78	0.238	NO		
	QPSK			DSI4	50%	25	37850/2580	24.00	22.50	0.137	0.011	1.41	0.194	NO		
Left Edge	QPSK			DSI2	1	50	38150/2610	25.00	25.00	0.064	0.013	1.00	0.064	NO		
	QPSK			DSI2	50%	25	37850/2580	24.00	24.00	0.039	0.023	1.00	0.039	NO		
Right Edge	QPSK			DSI2	1	50	38150/2610	25.00	25.00	0.074	0.090	1.00	0.074	NO		
	QPSK			DSI2	50%	25	37850/2580	24.00	24.00	0.071	0.014	1.00	0.071	NO		
Top Edge	N/A			N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NA	NA	NO		
	N/A			N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NA	NA	NO		
Bottom Edge	QPSK			DSI4	1	50	38150/2610	25.00	22.50	0.520	0.130	1.78	0.925	NO		
	QPSK			DSI4	1	50	37850/2580	25.00	22.50	0.502	0.012	1.78	0.892	NO		
	QPSK			DSI4	1	50	38000/2595	25.00	22.50	0.560	-0.167	1.78	0.996	NO		
	QPSK			DSI4	50%	25	38000/2595	24.00	22.50	0.442	0.038	1.41	0.624	NO		
	QPSK			DSI4	50%	50	37850/2580	24.00	22.50	0.245	0.120	1.41	0.346	NO		
	QPSK			DSI4	50%	25	38150/2610	24.00	22.50	0.310	0.010	1.41	0.438	NO		
	QPSK			DSI4	100%	0	38000/2595	24.00	22.50	0.414	0.010	1.41	0.585	NO		
	QPSK			DSI4	100%	0	37850/2580	24.00	22.50	0.250	0.032	1.41	0.354	NO		
Bottom Edge	QPSK	DSI4	100%	0	38150/2610	24.00	22.50	0.386	-0.040	1.41	0.545	NO				
Bottom Edge	QPSK	DSI4	1	50	38000/2595	22.50	22.50	0.550	0.032	1.00	0.550	NO				
	QPSK	DSI4	1	50	38150/2610	25.00	24.50	0.244	0.069	1.12	0.274	NO				
Back Side	QPSK	DSI4	50%	25	37850/2580	24.00	23.50	0.228	0.036	1.12	0.256	NO				
	QPSK	DSI4	1	50	38150/2610	25.00	24.50	0.172	0.021	1.12	0.193	NO				
Front Side	QPSK	DSI4	50%	25	37850/2580	24.00	23.50	0.128	0.010	1.12	0.144	NO				
	QPSK	DSI4	1	50	38150/2610	25.00	25.00	0.081	0.020	1.00	0.081	NO				
Left Edge	QPSK	DSI2	1	50	38150/2610	25.00	25.00	0.081	0.020	1.00	0.081	NO				
	QPSK	DSI2	50%	25	37850/2580	24.00	24.00	0.056	0.013	1.00	0.056	NO				
Right Edge	QPSK	DSI2	1	50	38150/2610	25.00	25.00	0.055	-0.048	1.00	0.055	NO				



		Top Edge	QPSK	DSI2	50%	25	37850/2580	24.00	24.00	0.051	0.000	1.00	0.051	NO	
			QPSK	DSI4	1	50	38150/2610	25.00	24.50	0.513	0.160	1.12	0.576	NO	
		Bottom Edge	QPSK	DSI4	50%	25	37850/2580	24.00	23.50	0.374	0.070	1.12	0.420	NO	
			N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NA	NA	NO	
			N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NA	NA	NO	
			N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NA	NA	NO
LTE 41 TDD	Low Antenna	Back Side	QPSK	DSI4	1	50	39750/2506	25.00	22.50	0.550	0.012	1.78	0.977	NO	
			QPSK	DSI4	50%	25	39750/2506	24.00	22.50	0.554	0.090	1.41	0.783	NO	
		Front Side	QPSK	DSI4	1	50	41490/2680	25.00	22.50	0.195	0.016	1.78	0.347	NO	
			QPSK	DSI4	50%	25	39750/2506	24.00	22.50	0.198	0.048	1.41	0.279	NO	
		Left Edge	QPSK	DSI2	1	50	39750/2506	25.00	25.00	0.038	-0.062	1.00	0.038	NO	
			QPSK	DSI2	50%	25	39750/2506	24.00	24.00	0.028	0.020	1.00	0.028	NO	
		Right Edge	QPSK	DSI2	1	50	39750/2506	25.00	25.00	0.099	0.069	1.00	0.099	NO	
			QPSK	DSI2	50%	25	39750/2506	24.00	24.00	0.075	-0.028	1.00	0.075	NO	
		Top Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NA	NA	NO
			N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NA	NA	NO
		Bottom Edge	QPSK	DSI4	1	50	39750/2506	25.00	22.50	0.636	-0.014	1.78	1.131	NO	
			QPSK	DSI4	1	50	40185/2549.5	25.00	22.50	0.642	0.022	1.78	1.142	NO	
			QPSK	DSI4	1	50	41490/2680	25.00	22.50	0.396	0.049	1.78	0.704	NO	
			QPSK	DSI4	50%	25	39750/2506	24.00	22.50	0.644	0.010	1.41	0.910	NO	
			QPSK	DSI4	50%	25	40185/2549.5	24.00	22.50	0.634	0.017	1.41	0.896	NO	
			QPSK	DSI4	50%	25	41490/2680	24.00	22.50	0.446	0.022	1.41	0.631	NO	
		QPSK	DSI4	100%	0	39750/2506	24.00	22.50	0.589	0.012	1.41	0.832	NO		
		Upper Antenna	Back Side	QPSK	DSI4	1	50	39750/2506	25.00	23.50	0.227	-0.030	1.41	0.321	NO
				QPSK	DSI4	50%	25	39750/2506	24.00	23.50	0.221	0.028	1.12	0.248	NO
			Front Side	QPSK	DSI4	1	50	39750/2506	25.00	23.50	0.150	0.021	1.41	0.212	NO
				QPSK	DSI4	50%	25	39750/2506	24.00	23.50	0.141	0.018	1.12	0.158	NO
			Left Edge	QPSK	DSI2	1	50	39750/2506	25.00	25.00	0.101	0.010	1.00	0.101	NO
				QPSK	DSI2	50%	25	39750/2506	24.00	24.00	0.080	0.012	1.00	0.080	NO
			Right Edge	QPSK	DSI2	1	50	39750/2506	25.00	25.00	0.058	-0.060	1.00	0.058	NO
QPSK	DSI2			50%	25	39750/2506	24.00	24.00	0.051	0.019	1.00	0.051	NO		
Top Edge	QPSK		DSI4	1	50	39750/2506	25.00	23.50	0.301	0.097	1.41	0.425	NO		
	QPSK		DSI4	50%	25	39750/2506	24.00	23.50	0.323	0.023	1.12	0.362	NO		
Bottom Edge	N/A		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NA	NA	NO		
	N/A		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NA	NA	NO		
LTE 66	Low Antenna		Back Side	QPSK	DSI4	1	50	132322/1745	25.00	21.00	0.358	0.024	2.51	0.899	NO
				QPSK	DSI4	50%	0	132322/1745	24.00	21.00	0.336	0.018	2.00	0.670	NO
		Front Side	QPSK	DSI4	1	50	132322/1745	25.00	21.00	0.180	0.033	2.51	0.452	NO	
			QPSK	DSI4	50%	0	132322/1745	24.00	21.00	0.165	-0.100	2.00	0.329	NO	
		Left Edge	QPSK	DSI2	1	50	132322/1745	25.00	25.00	0.223	0.025	1.00	0.223	NO	
			QPSK	DSI2	50%	25	132572/1770	24.00	24.00	0.176	-0.090	1.00	0.176	NO	
		Right Edge	QPSK	DSI2	1	50	132322/1745	25.00	25.00	0.059	0.030	1.00	0.059	NO	
			QPSK	DSI2	50%	25	132572/1770	24.00	24.00	0.053	0.042	1.00	0.053	NO	
		Top Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NA	NA	NO	



Upper Antenna	Bottom Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NA	NA	NO
		QPSK	DSI4	1	50	132322/1745	25.00	21.00	0.605	0.035	2.51	1.520	YES
	Back Side	QPSK	DSI4	50%	0	132322/1745	24.00	21.00	0.572	0.060	2.00	1.141	NO
		QPSK	DSI4	1	50	132322/1745	24.50	20.50	0.404	-0.100	2.51	1.015	NO
	Front Side	QPSK	DSI4	50%	0	132322/1745	23.50	20.50	0.410	0.024	2.00	0.818	NO
		QPSK	DSI4	1	50	132322/1745	24.50	20.50	0.176	-0.160	2.51	0.442	NO
	Left Edge	QPSK	DSI4	50%	0	132322/1745	23.50	20.50	0.176	0.038	2.00	0.351	NO
		QPSK	DSI2	1	50	132072/1720	24.50	24.50	0.101	0.010	1.00	0.101	NO
	Right Edge	QPSK	DSI2	50%	0	132322/1745	23.50	23.50	0.069	-0.090	1.00	0.069	NO
		QPSK	DSI2	1	50	132072/1720	24.50	24.50	0.042	0.022	1.00	0.042	NO
	Top Edge	QPSK	DSI2	50%	0	132322/1745	23.50	23.50	0.036	0.048	1.00	0.036	NO
		QPSK	DSI4	1	50	132322/1745	24.50	20.50	0.557	0.015	2.51	1.399	YES
	Bottom Edge	QPSK	DSI4	50%	0	132322/1745	23.50	20.50	0.574	0.036	2.00	1.145	NO
		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NA	NA	NO
			N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NA	NA	NO





## Product-specific 10g SAR

Band	Antenna	Test Position	Dist. (mm)	Mode	Power Reduction	RB	offset	Ch./Freq. (MHz)	Tune-up (dBm)	Measured power (dBm)	Measured SAR10g (W/kg)	Power Drift (dB)	Scaling Factor	Report SAR10g (W/kg)	Plot No.
WCDMA II	Low Antenna	Back Side	0	RMC	DS14	-	-	9400/1880	21.50	20.38	1.370	0.072	1.29	1.773	/
		Bottom Edge	0	RMC	DS14	-	-	9400/1880	21.50	20.38	1.390	0.180	1.29	1.799	/
		Bottom Edge SIM 2	0	RMC	DS14	-	-	9400/1880	21.50	20.38	1.290	0.190	1.29	1.670	/
		Bottom Edge 3+32G	0	RMC	DS14	-	-	9400/1880	21.50	20.38	1.280	0.160	1.29	1.657	/
		Bottom Edge 3+64G	0	RMC	DS14	-	-	9400/1880	21.50	20.38	1.090	0.030	1.29	1.411	/
		Bottom Edge 4+64G	0	RMC	DS14	-	-	9400/1880	21.50	20.38	1.330	0.000	1.29	1.721	/
		Bottom Edge	0	RMC	DS14	-	-	9262/1852.4	21.50	20.37	1.260	0.036	1.30	1.634	/
	Upper Antenna	Back Side	0	RMC	DS14	-	-	9400/1880	20.50	20.38	1.430	0.103	1.03	1.470	/
		Top Edge	0	RMC	DS14	-	-	9400/1880	20.50	20.38	1.600	0.014	1.03	1.645	52
		Top Edge	0	RMC	DS14	-	-	9262/1852.4	20.50	20.27	1.580	0.065	1.05	1.666	/
	Low Antenna	Bottom Edge Battery3	0	RMC	DS14	-	-	9400/1880	21.50	20.38	1.360	0.023	1.29	1.760	/
		Bottom Edge Battery4	0	RMC	DS14	-	-	9400/1880	21.50	20.38	1.280	0.035	1.29	1.657	/
		Bottom Edge Battery1	0	RMC	DS14	-	-	9400/1880	21.50	20.38	1.120	0.160	1.29	1.449	/
WCDMA IV	Low Antenna	Bottom Edge	0	RMC	DS14	-	-	1413/1732.6	21.00	20.00	1.300	0.021	1.26	1.637	/
	Upper Antenna	Back Side	0	RMC	DS14	-	-	1413/1732.6	19.50	18.24	0.980	0.062	1.34	1.309	/
		Top Edge	0	RMC	DS14	-	-	1413/1732.6	19.50	18.24	1.110	0.022	1.34	1.484	/
			0	RMC	DS14	-	-	1312/1712.4	19.50	18.18	1.170	0.056	1.36	1.586	/
	0	RMC	DS14	-	-	1513/1752.6	19.50	18.29	0.959	0.050	1.32	1.267	/		
	Low Antenna	Bottom Edge Battery3	0	RMC	DS14	-	-	1413/1732.6	21.00	20.00	1.350	0.036	1.26	1.700	53
		Bottom Edge Battery4	0	RMC	DS14	-	-	1413/1732.6	21.00	20.00	1.210	0.034	1.26	1.523	/
Bottom Edge Battery1		0	RMC	DS14	-	-	1413/1732.6	21.00	20.00	1.150	0.120	1.26	1.448	/	
LTE B2	Upper Antenna	Top Edge	0	QPSK	DS14	1	50	19100/1900	20.50	19.48	1.000	0.035	1.26	1.265	/
	Upper Antenna	Top Edge Battery3	0	QPSK	DS14	1	50	19100/1900	20.50	19.48	0.980	0.026	1.26	1.239	/
		Top Edge Battery4	0	QPSK	DS14	1	50	19100/1900	20.50	19.48	1.000	0.036	1.26	1.265	54
		Top Edge Battery1	0	QPSK	DS14	1	50	19100/1900	20.50	19.48	0.960	0.028	1.26	1.214	/



LTE 7	Low Antenna	Back Side	0	QPSK	DSI4	1	50	20850/2510	19.50	18.28	1.190	0.099	1.32	1.576	55
		Bottom Edge	0	QPSK	DSI4	1	50	21350/2560	19.50	18.16	0.952	0.037	1.36	1.296	/
			0	QPSK	DSI4	50%	50	20850/2510	19.50	18.16	1.003	0.032	1.36	1.366	/
		Back Side Battery3	0	QPSK	DSI4	1	50	20850/2510	19.50	18.16	0.954	0.140	1.36	1.299	/
		Back Side Battery4	0	QPSK	DSI4	1	50	20850/2510	19.50	18.16	0.923	0.023	1.36	1.257	/
		Back Side Battery1	0	QPSK	DSI4	1	50	20850/2510	19.50	18.28	0.960	0.160	1.32	1.271	/
LTE B66	Low Antenna	Bottom Edge	0	QPSK	DSI4	1	50	132322/1745	21.00	20.03	1.150	-0.080	1.25	1.438	/
	Upper Antenna	Top Edge	0	QPSK	DSI4	1	50	132322/1745	20.50	19.92	1.150	0.022	1.14	1.314	/
	Low Antenna	Bottom Edge Battery3	0	QPSK	DSI4	1	50	132322/1745	21.00	20.03	1.140	0.180	1.25	1.425	/
		Bottom Edge Battery4	0	QPSK	DSI4	1	50	132322/1745	21.00	20.03	1.250	0.049	1.25	1.563	56
		Bottom Edge Battery1	0	QPSK	DSI4	1	50	132322/1745	21.00	20.03	1.060	0.036	1.25	1.325	/

Band	Antenna	Test Position	Dist. (mm)	Mode	Duty Cycle	Power Reduction	Ch./Freq. (MHz)	Tune-up (dBm)	Measured power (dBm)	Measured SAR10g (W/kg)	Power Drift (dB)	Scaling Factor	Report SAR10g (W/kg)	Plot No.	
U-NII-2A	Wi-Fi	Back Side	0	802.11a	100.0%	Receiver off	60/5300	16.50	15.36	0.798	0.062	1.30	1.038	/	
		Front Side	0	802.11a	100.0%	Receiver off	60/5300	16.50	15.36	0.289	0.011	1.30	0.376	/	
		Left Edge	0	802.11a	100.0%	Receiver off	60/5300	16.50	15.36	0.031	0.035	1.30	0.040	/	
		Right Edge	0	802.11a	100.0%	Receiver off	60/5300	16.50	15.36	0.305	0.020	1.30	0.397	/	
		Top Edge	0	802.11a	100.0%	Receiver off	60/5300	16.50	15.36	0.956	0.041	1.30	1.243	/	
		Bottom Edge	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/
		Top Edge Battery3	0	802.11a	100.0%	Receiver off	60/5300	16.50	15.36	1.360	0.038	1.30	1.768	57	
		Top Edge Battery4	0	802.11a	100.0%	Receiver off	60/5300	16.50	15.36	1.330	0.021	1.30	1.729	/	
		Top Edge Battery1	0	802.11a	100.0%	Receiver off	60/5300	16.50	15.36	0.932	0.140	1.30	1.212	/	
U-NII-2C	Wi-Fi	Back Side	0	802.11a	100.0%	Receiver off	136/5680	16.50	14.95	0.536	0.143	1.43	0.766	/	
		Front Side	0	802.11a	100.0%	Receiver off	136/5680	16.50	14.95	0.134	-0.060	1.43	0.191	/	
		Left Edge	0	802.11a	100.0%	Receiver off	136/5680	16.50	14.95	0.009	0.100	1.43	0.013	/	
		Right Edge	0	802.11a	100.0%	Receiver off	136/5680	16.50	14.95	0.201	0.138	1.43	0.287	/	
		Top Edge	0	802.11a	100.0%	Receiver off	136/5680	16.50	14.95	0.362	0.126	1.43	0.517	/	
		Bottom Edge	0	802.11a	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/
		Back Side Battery3	0	802.11a	100.0%	Receiver off	136/5680	16.50	14.95	0.524	0.026	1.43	0.749	/	
		Back Side	0	802.11a	100.0%	Receiver off	136/5680	16.50	14.95	0.831	0.034	1.43	1.187	/	



	Battery4													
	Back Side	0	802.11a	100.0%	Receiver off	136/5680	16.50	14.95	0.544	0.039	1.43	0.777	/	
	Battery1													



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

Band	Antenna	Dist. (mm)	Test Position	Mode	Power Reduction	Offset	Ch./Freq. (MHz)	Tune-up (dBm)	Measured power (dBm)	Measured SAR1g (W/kg)	Power Drift (dB)	Scaling Factor	Report SAR1g (W/kg)	Plot No.	
GSM850	Low Antenna	16	Back Side	2TX Slots	DSI2	-	190/836.6	31.00	29.39	0.231	-0.010	1.45	0.335	/	
		9	Front Side	2TX Slots	DSI2	-	190/836.6	31.00	29.39	0.228	0.000	1.45	0.330	/	
		16	Bottom Edge	2TX Slots	DSI2	-	190/836.6	31.00	29.39	0.129	-0.010	1.45	0.187	/	
	Upper Antenna	16	Back Side	2TX Slots	DSI2	-	190/836.6	31.00	30.08	0.227	-0.010	1.24	0.281	/	
		9	Front Side	2TX Slots	DSI2	-	190/836.6	31.00	30.08	0.271	0.010	1.24	0.335	/	
		16	Top Edge	2TX Slots	DSI2	-	190/836.6	31.00	30.08	0.105	0.020	1.24	0.130	/	
GSM1900	Low Antenna	16	Back Side	2TX Slots	DSI2	-	661/1880	27.50	26.96	0.145	-0.020	1.13	0.164	/	
		9	Front Side	2TX Slots	DSI2	-	661/1880	27.50	26.96	0.179	0.000	1.13	0.203	/	
		16	Bottom Edge	2TX Slots	DSI2	-	661/1880	27.50	26.96	0.324	0.010	1.13	0.367	/	
	Upper Antenna	16	Back Side	2TX Slots	DSI2	-	661/1880	28.00	26.54	0.191	0.060	1.40	0.267	/	
		9	Front Side	2TX Slots	DSI2	-	661/1880	28.00	26.54	0.228	0.032	1.40	0.319	/	
		16	Top Edge	2TX Slots	DSI2	-	661/1880	28.00	26.54	0.274	0.090	1.40	0.383	/	
WCDMA II	Low Antenna	16	Back Side	RMC 12.2K	DSI2	-	9400/1880	25.00	23.19	0.511	0.075	1.52	0.775	/	
		9	Front Side	RMC 12.2K	DSI2	-	9400/1880	25.00	23.19	0.648	0.067	1.52	0.983	58	
		9	Front Side	RMC 12.2K	DSI2	-	9262/1852.4	25.00	23.19	0.611	-0.130	1.52	0.927	/	
		9	Front Side	RMC 12.2K	DSI2	-	9538/1907.6	25.00	23.32	0.631	0.090	1.47	0.929	/	
		16	Bottom Edge	RMC 12.2K	DSI2	-	9400/1880	25.00	23.19	0.465	0.136	1.52	0.705	/	
	Upper Antenna	16	Back Side	RMC 12.2K	DSI2	-	9400/1880	25.00	23.27	0.363	0.039	1.49	0.541	/	
		9	Front Side	RMC 12.2K	DSI2	-	9400/1880	25.00	23.27	0.367	0.076	1.49	0.547	/	
		16	Top Edge	RMC 12.2K	DSI2	-	9400/1880	25.00	23.27	0.497	0.076	1.49	0.740	/	
WCDMA IV	Low Antenna	16	Back Side	RMC 12.2K	DSI2	-	1413/1732.6	25.00	25.00	0.356	0.036	1.00	0.356	/	
		9	Front Side	RMC 12.2K	DSI2	-	1413/1732.6	25.00	25.00	0.391	0.013	1.00	0.391	/	
		16	Bottom Edge	RMC 12.2K	DSI2	-	1413/1732.6	25.00	25.00	0.639	0.100	1.00	0.639	/	
	Upper Antenna	16	Back Side	RMC 12.2K	DSI2	-	1413/1732.6	24.50	23.47	0.455	-0.110	1.27	0.577	/	
		9	Front Side	RMC 12.2K	DSI2	-	1413/1732.6	24.50	23.47	0.585	0.022	1.27	0.742	/	
		16	Top Edge	RMC 12.2K	DSI2	-	1413/1732.6	24.50	23.47	0.684	0.049	1.27	0.867	/	
		16	Top Edge	RMC 12.2K	DSI2	-	1312/1712.4	24.50	23.37	0.828	0.024	1.30	1.074	59	
		16	Top Edge	RMC 12.2K	DSI2	-	1513/1752.6	24.50	23.36	0.528	0.011	1.30	0.686	/	
WCDMA V	Low Antenna	16	Back Side	RMC 12.2K	DSI2	-	4183/836.6	25.00	23.18	0.249	0.050	1.52	0.379	/	
		9	Front Side	RMC 12.2K	DSI2	-	4183/836.6	25.00	23.18	0.148	0.018	1.52	0.225	/	
		16	Bottom Edge	RMC 12.2K	DSI2	-	4183/836.6	25.00	23.18	0.090	0.042	1.52	0.137	/	
	Upper Antenna	16	Back Side	RMC 12.2K	DSI2	-	4183/836.6	25.00	23.06	0.236	0.036	1.56	0.369	/	
		9	Front Side	RMC 12.2K	DSI2	-	4183/836.6	25.00	23.06	0.284	0.011	1.56	0.444	/	
		16	Top Edge	RMC 12.2K	DSI2	-	4183/836.6	25.00	23.06	0.096	0.098	1.56	0.150	/	
LTE 2	Low Antenna	16	Back Side	QPSK	DSI2	1	50	18900/1880	25.00	23.35	0.510	0.020	1.46	0.746	/
		9	Front Side	QPSK	DSI2	1	50	18900/1880	25.00	23.35	0.652	0.053	1.46	0.953	60
		9	Front Side	QPSK	DSI2	1	50	18700/1860	25.00	23.32	0.625	0.024	1.47	0.920	/
		9	Front Side	QPSK	DSI2	1	50	19100/1900	25.00	23.31	0.635	0.038	1.48	0.937	/
		16	Bottom Edge	QPSK	DSI2	1	50	18900/1880	25.00	23.35	0.558	0.160	1.46	0.816	/



	Upper Antenna	16	Back Side	QPSK	DSI2	1	50	19100/1900	25.00	23.44	0.286	-0.010	1.43	0.410	/
		9	Front Side	QPSK	DSI2	1	50	19100/1900	25.00	23.44	0.310	-0.030	1.43	0.444	/
		16	Top Edge	QPSK	DSI2	1	50	19100/1900	25.00	23.44	0.397	-0.010	1.43	0.569	/
LTE 5	Low Antenna	16	Back Side	QPSK	DSI2	1	25	20525/836.5	25.00	23.69	0.255	0.100	1.35	0.345	/
		9	Front Side	QPSK	DSI2	1	25	20525/836.5	25.00	23.69	0.166	0.096	1.35	0.224	/
		16	Bottom Edge	QPSK	DSI2	1	25	20525/836.5	25.00	23.69	0.093	-0.020	1.35	0.126	/
	Upper Antenna	16	Back Side	QPSK	DSI2	1	25	20450/829	25.00	23.55	0.301	0.030	1.40	0.420	/
		9	Front Side	QPSK	DSI2	1	25	20450/829	25.00	23.55	0.300	0.046	1.40	0.419	/
		16	Top Edge	QPSK	DSI2	1	25	20450/829	25.00	23.55	0.118	0.057	1.40	0.165	/
LTE 7	Low Antenna	16	Back Side	QPSK	DSI2	1	50	21350/2560	24.50	23.40	0.597	0.042	1.29	0.769	/
		9	Front Side	QPSK	DSI2	1	50	21350/2560	24.50	23.40	0.540	0.056	1.29	0.696	/
		16	Bottom Edge	QPSK	DSI2	1	50	21350/2560	24.50	23.40	0.742	0.130	1.29	0.956	/
		16	Bottom Edge	QPSK	DSI2	1	50	20850/2510	24.50	23.34	0.752	0.040	1.31	0.982	/
		16	Bottom Edge	QPSK	DSI2	1	50	21100/2535	24.50	23.39	0.649	0.030	1.29	0.838	/
	Upper Antenna	16	Back Side	QPSK	DSI2	1	50	20850/2510	25.00	23.45	0.263	-0.024	1.43	0.376	/
		9	Front Side	QPSK	DSI2	1	50	20850/2510	25.00	23.45	0.346	0.160	1.43	0.494	/
		16	Top Edge	QPSK	DSI2	1	50	20850/2510	25.00	23.45	0.392	0.030	1.43	0.560	/
LTE 13	Low Antenna	16	Back Side	QPSK	DSI2	1	25	23230/782	25.00	23.49	0.128	0.070	1.42	0.181	/
		9	Front Side	QPSK	DSI2	1	25	23230/782	25.00	23.49	0.100	0.042	1.42	0.142	/
		16	Bottom Edge	QPSK	DSI2	1	25	23230/782	25.00	23.49	0.061	0.079	1.42	0.086	/
	Upper Antenna	16	Back Side	QPSK	DSI2	1	25	23230/782	25.00	23.12	0.231	0.090	1.54	0.356	/
		9	Front Side	QPSK	DSI2	1	25	23230/782	25.00	23.12	0.228	-0.055	1.54	0.352	/
		16	Top Edge	QPSK	DSI2	1	25	23230/782	25.00	23.12	0.093	0.034	1.54	0.143	/
LTE 26	Low Antenna	16	Back Side	QPSK	DSI2	1	38	26865/831.5	25.00	23.56	0.241	-0.044	1.39	0.336	/
		9	Front Side	QPSK	DSI2	1	38	26865/831.5	25.00	23.56	0.162	0.115	1.39	0.226	/
		16	Bottom Edge	QPSK	DSI2	1	38	26865/831.5	25.00	23.56	0.082	0.050	1.39	0.114	/
	Upper Antenna	16	Back Side	QPSK	DSI2	1	38	26865/831.5	25.00	23.44	0.290	0.043	1.43	0.415	/
		9	Front Side	QPSK	DSI2	1	38	26865/831.5	25.00	23.44	0.307	0.029	1.43	0.440	/
		16	Top Edge	QPSK	DSI2	1	38	26865/831.5	25.00	23.44	0.101	0.065	1.43	0.145	/
LTE 38	Low Antenna	16	Back Side	QPSK	DSI2	1	50	38150/2610	25.00	23.29	0.326	0.080	1.48	0.483	/
		9	Front Side	QPSK	DSI2	1	50	38150/2610	25.00	23.29	0.310	0.019	1.48	0.460	/
		16	Bottom Edge	QPSK	DSI2	1	50	38150/2610	25.00	23.29	0.409	-0.029	1.48	0.606	/
	Upper Antenna	16	Back Side	QPSK	DSI2	1	50	38150/2610	25.00	23.25	0.165	0.000	1.50	0.247	/
		9	Front Side	QPSK	DSI2	1	50	38150/2610	25.00	23.25	0.232	0.038	1.50	0.347	/
		16	Top Edge	QPSK	DSI2	1	50	38150/2610	25.00	23.25	0.256	0.010	1.50	0.383	/
LTE 41	Low Antenna	16	Back Side	QPSK	DSI2	1	50	39750/2506	25.00	23.52	0.406	-0.010	1.41	0.571	/
		9	Front Side	QPSK	DSI2	1	50	39750/2506	25.00	23.52	0.342	-0.040	1.41	0.481	/
		16	Bottom Edge	QPSK	DSI2	1	50	39750/2506	25.00	23.52	0.537	0.022	1.41	0.755	/
	Upper Antenna	16	Back Side	QPSK	DSI2	1	50	39750/2506	25.00	23.50	0.158	0.018	1.41	0.223	/
		9	Front Side	QPSK	DSI2	1	50	39750/2506	25.00	23.50	0.211	0.036	1.41	0.298	/
		16	Top Edge	QPSK	DSI2	1	50	39750/2506	25.00	23.50	0.252	0.020	1.41	0.356	/
LTE 66	Low Antenna	16	Back Side	QPSK	DSI2	1	50	132322/1745	25.00	23.34	0.351	0.000	1.47	0.514	/
		9	Front Side	QPSK	DSI2	1	50	132322/1745	25.00	23.34	0.411	0.070	1.47	0.602	/



Upper Antenna	16	Bottom Edge	QPSK	DSI2	1	50	132072/1720	25.00	23.34	0.639	-0.020	1.47	0.936	/
	16	Bottom Edge	QPSK	DSI2	1	50	132572/1770	25.00	23.31	0.597	0.020	1.48	0.881	/
	16	Bottom Edge	QPSK	DSI2	1	50	132322/1745	25.00	23.31	0.726	0.010	1.48	1.071	/
	16	Back Side	QPSK	DSI2	1	50	132072/1720	24.50	23.53	0.704	0.010	1.25	0.880	/
	16	Back Side	QPSK	DSI2	1	50	132322/1745	24.50	23.51	0.394	0.000	1.26	0.495	/
	16	Back Side	QPSK	DSI2	1	50	132572/1770	24.50	23.39	0.268	0.060	1.29	0.346	/
	9	Front Side	QPSK	DSI2	1	50	132072/1720	24.50	23.53	0.751	-0.090	1.25	0.939	61
	9	Front Side	QPSK	DSI2	1	50	132322/1745	24.50	23.51	0.516	0.091	1.26	0.648	/
	9	Front Side	QPSK	DSI2	1	50	132572/1770	24.50	23.39	0.500	0.032	1.29	0.646	/
	16	Top Edge	QPSK	DSI2	1	50	132072/1720	24.50	23.53	0.791	0.027	1.25	0.989	/
	16	Top Edge	QPSK	DSI2	1	50	132322/1745	24.50	23.51	0.730	-0.065	1.26	0.917	/
	16	Top Edge	QPSK	DSI2	1	50	132572/1770	24.50	23.39	0.417	0.087	1.29	0.538	/

### 10.3 Simultaneous Transmission Analysis

Simultaneous Transmission Configurations	Head	Body-worn	Hotspot	Product Specific 10-g SAR
Low Antenna + Bluetooth	Yes	Yes	Yes	Yes
Upper Antenna + Bluetooth	Yes	Yes	Yes	Yes
Low Antenna + Wi-Fi 2.4GHz	Yes	Yes	Yes	Yes
Upper Antenna + Wi-Fi 2.4GHz	Yes	Yes	Yes	Yes
Low Antenna + Wi-Fi 5GHz	Yes	Yes	Yes	Yes
Upper Antenna + Wi-Fi 5GHz	Yes	Yes	Yes	Yes
Wi-Fi 2.4GHz + Bluetooth	Yes	Yes	Yes	Yes
Wi-Fi 5GHz + Bluetooth	Yes	Yes	Yes	Yes
Low Antenna + Wi-Fi 2.4GHz + Bluetooth	Yes	Yes	Yes	Yes
Upper Antenna + Wi-Fi 2.4GHz + Bluetooth	Yes	Yes	Yes	Yes
Low Antenna + Wi-Fi 5GHz + Bluetooth	Yes	Yes	Yes	Yes
Upper Antenna + Wi-Fi 5GHz + Bluetooth	Yes	Yes	Yes	Yes
Wi-Fi 2.4GHz + Wi-Fi 5GHz	N/A	N/A	Yes	N/A
Upper Antenna + Low Antenna	N/A	N/A	Yes	N/A

**General Note:**

1. The Scaled SAR summation is calculated based on the same configuration and test position.
2. Per KDB 447498 D01, simultaneous transmission SAR is compliant if,
  - i) Scalar SAR summation < 1.6W/kg, simultaneously transmission SAR measurement is not necessary.
  - ii)  $SPLSR = (SAR1 + SAR2)^{1.5} / (\text{min. separation distance, mm})$ , 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  $SPLSR \leq 0.04$ , simultaneously transmission SAR measurement is not necessary.



**The Maximum SAR<sub>1g</sub> Value for Low -Antenna**

Test Position		SAR <sub>1g</sub> (W/kg)	GSM 850	GSM 1900	WCDMA Band II	WCDMA Band IV	WCDMA Band V	LTE 2	LTE 5	LTE 7	LTE 13	LTE 26	LTE 38	LTE 41	LTE 66	MAX. SAR <sub>1g</sub>
Head	Left Cheek	0.236	0.126	0.209	0.133	0.175	0.304	0.192	0.144	0.118	0.192	0.095	0.061	0.145	0.304	
	Left Tilt	0.105	0.124	0.183	0.149	0.079	0.214	0.091	0.180	0.058	0.094	0.102	0.058	0.201	0.214	
	Right Cheek	0.232	0.098	0.121	0.159	0.220	0.162	0.184	0.123	0.120	0.210	0.095	0.057	0.240	0.240	
	Right Tilt	0.084	0.091	0.135	0.124	0.100	0.113	0.080	0.098	0.042	0.100	0.069	0.030	0.167	0.167	
Body worn	Back Side	0.584	0.636	0.762	0.444	0.416	0.600	0.400	0.611	0.335	0.407	0.525	0.612	0.448	0.762	
	Front Side	0.334	0.230	0.338	0.196	0.205	0.355	0.178	0.201	0.127	0.173	0.199	0.256	0.225	0.355	
Hotspot & 1g SAR triggering distance minus 1mm (Front)	Back Side	0.584	0.636	0.762	0.444	0.416	0.600	0.400	0.611	0.335	0.407	0.525	0.612	0.448	0.762	
	Front Side	0.334	0.230	0.338	0.196	0.205	0.355	0.178	0.201	0.127	0.173	0.199	0.256	0.225	0.355	
	Left Edge	0.198	0.107	0.484	0.374	0.000	0.566	0.000	0.098	0.000	0.070	0.094	0.054	0.327	0.566	
	Right Edge	0.217	0.075	0.074	0.000	0.135	0.076	0.108	0.218	0.063	0.192	0.110	0.139	0.086	0.218	
	Top Edge	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	Bottom Edge	0.296	0.617	0.859	0.723	0.239	0.830	0.237	0.791	0.181	0.238	0.853	0.940	0.780	0.940	
Product Specific 10-g SAR	Back Side	NA	NA	1.773	NA	NA	NA	NA	1.576	NA	NA	NA	NA	NA	1.773	
	Front Side	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	Left Edge	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	Right Edge	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	Top Edge	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	Bottom Edge	NA	NA	1.799	1.700	NA	NA	NA	1.366	NA	NA	NA	NA	1.563	1.799	

**The Maximum SAR<sub>1g</sub> Value for Upper-Antenna**

Test Position		SAR <sub>1g</sub> (W/kg)	GSM 850	GSM 1900	WCDMA Band II	WCDMA Band IV	WCDMA Band V	LTE 2	LTE 5	LTE 7	LTE 13	LTE 26	LTE 38	LTE 41	LTE 66	MAX. SAR <sub>1g</sub>
Head	Left Cheek	0.843	0.317	0.527	0.533	0.809	0.269	0.863	0.713	0.711	0.912	0.670	0.421	0.397	0.912	
	Left Tilt	0.443	0.451	0.703	0.647	0.535	0.388	0.707	0.781	0.628	0.678	0.868	0.534	0.460	0.868	
	Right Cheek	1.021	0.435	0.716	0.751	0.972	0.406	1.081	0.542	0.942	1.054	0.704	1.073	0.675	1.081	
	Right Tilt	0.863	0.556	1.018	1.027	0.740	0.740	0.851	0.502	0.708	0.765	0.820	0.688	0.871	1.027	
Body worn	Back Side	0.472	0.258	0.457	0.518	0.564	0.312	0.477	0.456	0.444	0.573	0.325	0.281	0.503	0.573	
	Front Side	0.238	0.129	0.161	0.216	0.291	0.130	0.249	0.358	0.229	0.317	0.229	0.186	0.216	0.358	
Hotspot & 1g SAR triggering distance minus 1mm (Front)	Back Side	0.472	0.258	0.457	0.518	0.564	0.312	0.477	0.456	0.444	0.573	0.325	0.281	0.503	0.573	
	Front Side	0.238	0.129	0.161	0.216	0.291	0.130	0.249	0.358	0.229	0.317	0.229	0.186	0.216	0.358	
	Left Edge	0.121	0.025	0.076	0.054	0.069	0.090	0.089	0.349	0.091	0.056	0.121	0.143	0.126	0.349	
	Right Edge	0.079	0.182	0.000	0.000	0.138	0.000	0.127	0.167	0.153	0.185	0.082	0.082	0.053	0.185	
	Top Edge	0.231	0.436	0.842	0.858	0.343	0.548	0.251	0.798	0.222	0.334	0.684	0.410	0.705	0.858	
	Bottom Edge	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Product Specific 10-g SAR	Back Side	NA	NA	1.470	1.309	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.470	
	Front Side	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	Left Edge	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	Right Edge	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	Top Edge	NA	NA	1.666	1.586	NA	1.265	NA	NA	NA	NA	NA	NA	1.314	1.666	
	Bottom Edge	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	





## About Bluetooth, Wi-Fi and Low-Antenna/ Upper-Antenna

Test Position	SAR <sub>1g/10g</sub> (W/kg)	Low - Antenna	Upper - Antenna	Wi-Fi 2.4G	Wi-Fi 5G				Bluetooth	MAX. $\Sigma$ SAR <sub>1g/10g</sub>
					U-NII-1	U-NII-2A	U-NII-2C	U-NII-3		
Head	Left Cheek	0.304	<b>0.912</b>	<b>0.499</b>	0.318	0.350	0.407	0.307	0.051	1.462
	Left Tilt	0.214	<b>0.868</b>	0.464	0.457	<b>0.529</b>	0.497	0.370	0.182	<b>1.579</b>
	Right Cheek	0.240	<b>1.081</b>	0.187	0.196	0.252	<b>0.349</b>	0.255	0.041	1.471
	Right Tilt	0.167	<b>1.027</b>	0.177	0.243	0.294	<b>0.423</b>	0.311	0.042	1.492
Body worn	Back Side	<b>0.762</b>	0.573	0.293	<b>0.644</b>	N/A	N/A	0.420	0.126	1.532
	Front Side	0.355	<b>0.358</b>	<b>0.235</b>	0.169	N/A	N/A	0.154	0.008	0.601
Hotspot & 1g SAR triggering distance minus 1mm (Front)	Back Side	<b>0.762</b>	0.573	0.293	<b>0.644</b>	N/A	N/A	0.420	0.126	1.532
	Front Side	0.355	<b>0.358</b>	<b>0.235</b>	0.169	N/A	N/A	0.154	0.008	0.601
	Left Edge	<b>0.566</b>	0.349	0.000	<b>0.109</b>	N/A	N/A	0.070	0.000	0.675
	Right Edge	<b>0.218</b>	0.185	0.284	<b>0.337</b>	N/A	N/A	0.260	0.000	0.555
	Top Edge	NA	<b>0.858</b>	0.154	<b>0.693</b>	N/A	N/A	0.376	0.013	1.564
	Bottom Edge	<b>0.940</b>	NA	N/A	N/A	N/A	N/A	N/A	N/A	0.940
Product Specific 10-g SAR	Back Side	<b>1.773</b>	1.470	N/A	N/A	1.038	<b>1.187</b>	N/A	N/A	2.960
	Front Side	NA	NA	N/A	N/A	<b>0.376</b>	0.191	N/A	N/A	0.376
	Left Edge	NA	NA	N/A	N/A	<b>0.040</b>	0.013	N/A	N/A	0.040
	Right Edge	NA	NA	N/A	N/A	<b>0.397</b>	0.287	N/A	N/A	0.397
	Top Edge	NA	<b>1.666</b>	N/A	N/A	<b>1.768</b>	0.517	N/A	N/A	<b>3.434</b>
	Bottom Edge	<b>1.799</b>	NA	N/A	N/A	N/A	N/A	N/A	N/A	1.799

Note:

1. The value with blue color is the maximum  $\Sigma$ SAR<sub>1g/10g</sub> Value.2. MAX.  $\Sigma$ SAR<sub>1g/10g</sub> =Unlicensed SAR<sub>MAX</sub> +Licensed SAR<sub>MAX</sub>3. MAX.  $\Sigma$ SAR<sub>1g</sub> =1.579W/kg<1.6W/kg and MAX.  $\Sigma$ SAR<sub>10g</sub> =3.434W/kg<4 W/kg, so the Simultaneous transmission SAR with volume scan are not required for Bluetooth, Wi-Fi and Low-Antenna/ Upper-Antenna.



## 11 Measurement Uncertainty

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

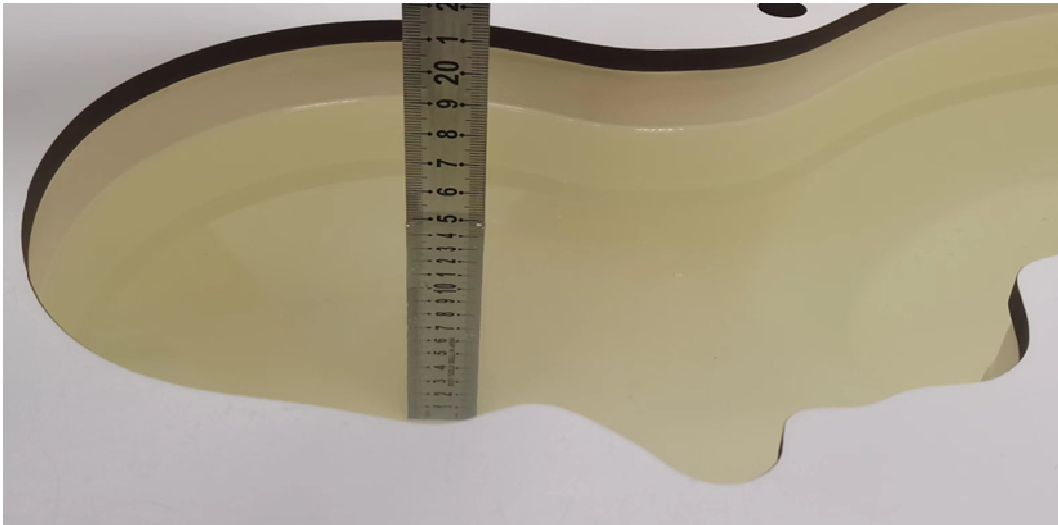
**\*\*\*\*\*END OF REPORT \*\*\*\*\***

## ANNEX A: Test Layout

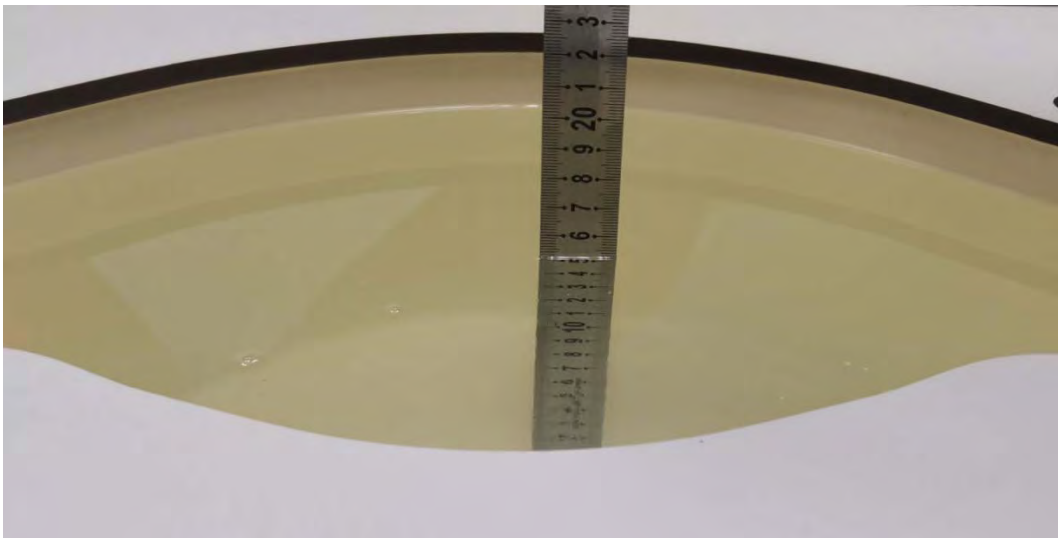


### Tissue Simulating Liquids

For the measurement of the field distribution inside the flat phantom with DASY, the phantom must be filled with around 25 liters of homogeneous tissue simulating liquid. For SAR testing, the liquid height from the center of the flat phantom to the liquid top surface is  $>15$  cm, which is shown as below.



Picture 3: liquid depth in the head Phantom



Picture 4: Liquid depth in the flat Phantom

## ANNEX B: System Check Results

### Plot 1 System Performance Check at 750 MHz TSL

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

Date: 2022/10/11

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

Medium parameters used:  $f = 750 \text{ MHz}$ ;  $\sigma = 0.88 \text{ S/m}$ ;  $\epsilon_r = 42.3$ ;  $\rho = 1000 \text{ kg/m}^3$

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

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

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

Electronics: DAE4 SN1317; Calibrated: 2022/6/13

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

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

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

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

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

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

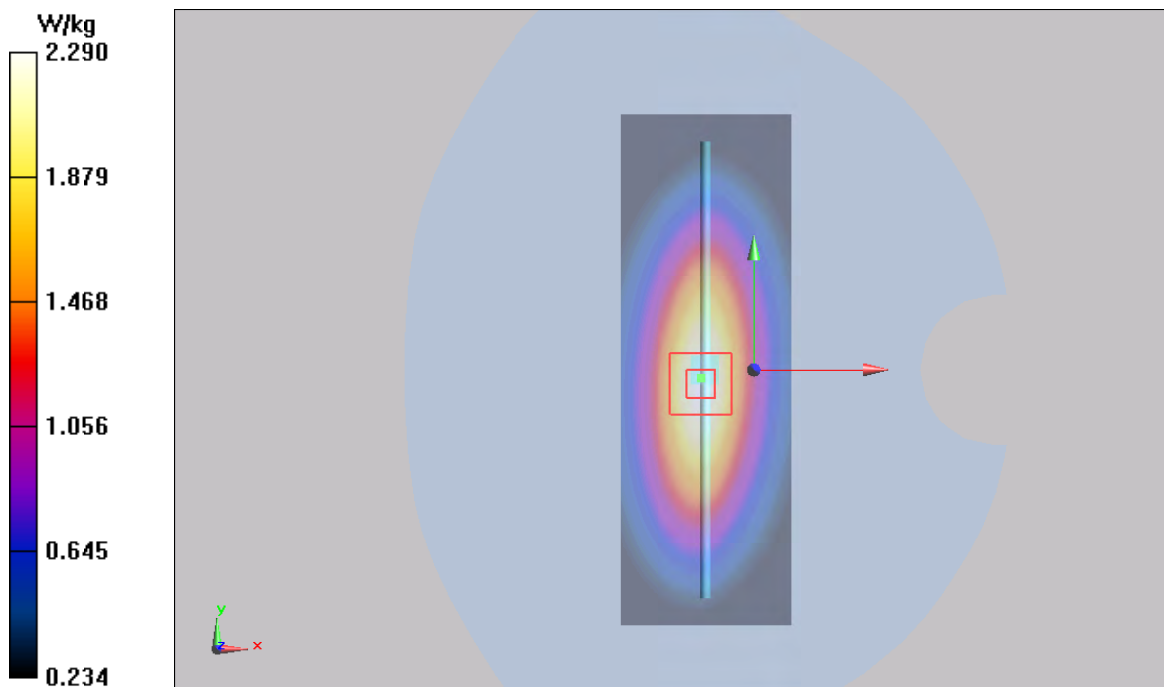
Peak SAR (extrapolated) = 3.16 W/kg

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

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

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

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



**Plot 2 System Performance Check at 835 MHz TSL**

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

Date: 2022/10/13

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

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

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

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(9.34, 9.34, 9.34); Calibrated: 2022/7/8

Electronics: DAE4 SN1317; Calibrated: 2022/6/13

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

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

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

Maximum value of SAR (measured) = 2.58 W/kg

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

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

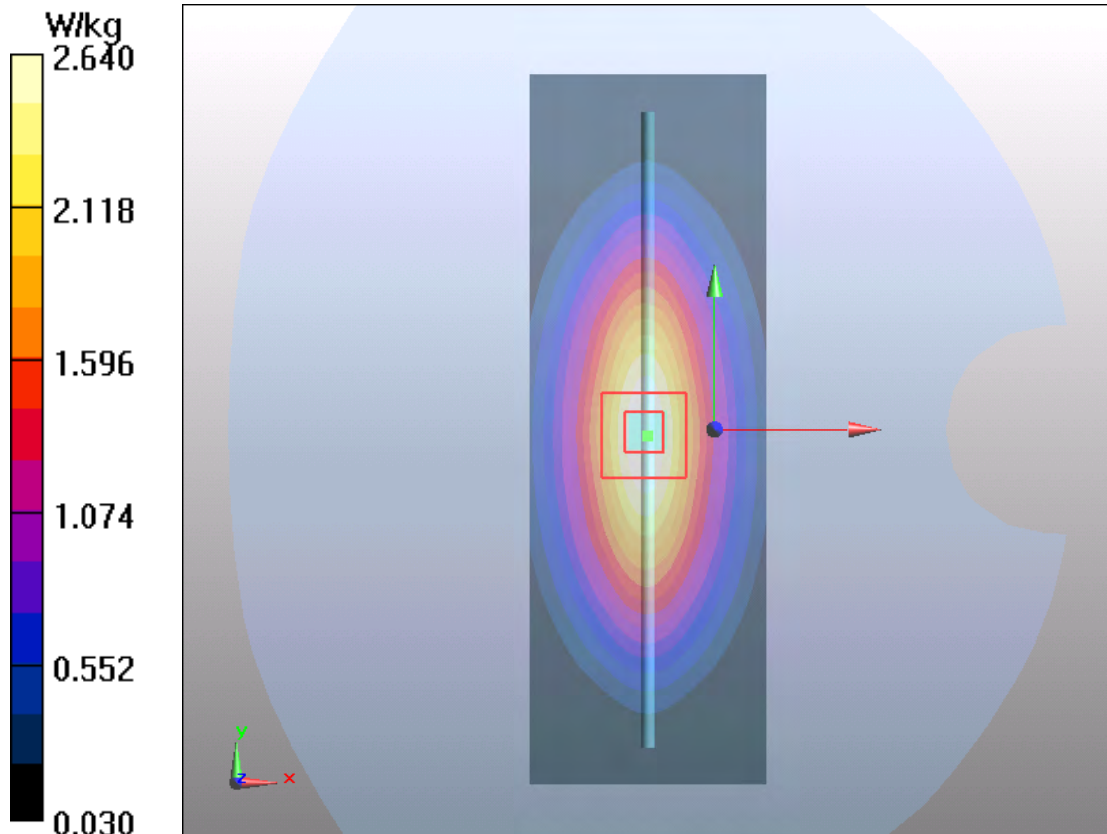
Peak SAR (extrapolated) = 3.67 W/kg

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

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

Ratio of SAR at M2 to SAR at M1 = 68.3%

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



**Plot 3 System Performance Check at 835 MHz TSL**

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

Date: 2022/10/14

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

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

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

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(9.34, 9.34, 9.34); Calibrated: 2022/7/8

Electronics: DAE4 SN1317; Calibrated: 2022/6/13

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

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

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

Maximum value of SAR (measured) = 2.59 W/kg

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

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

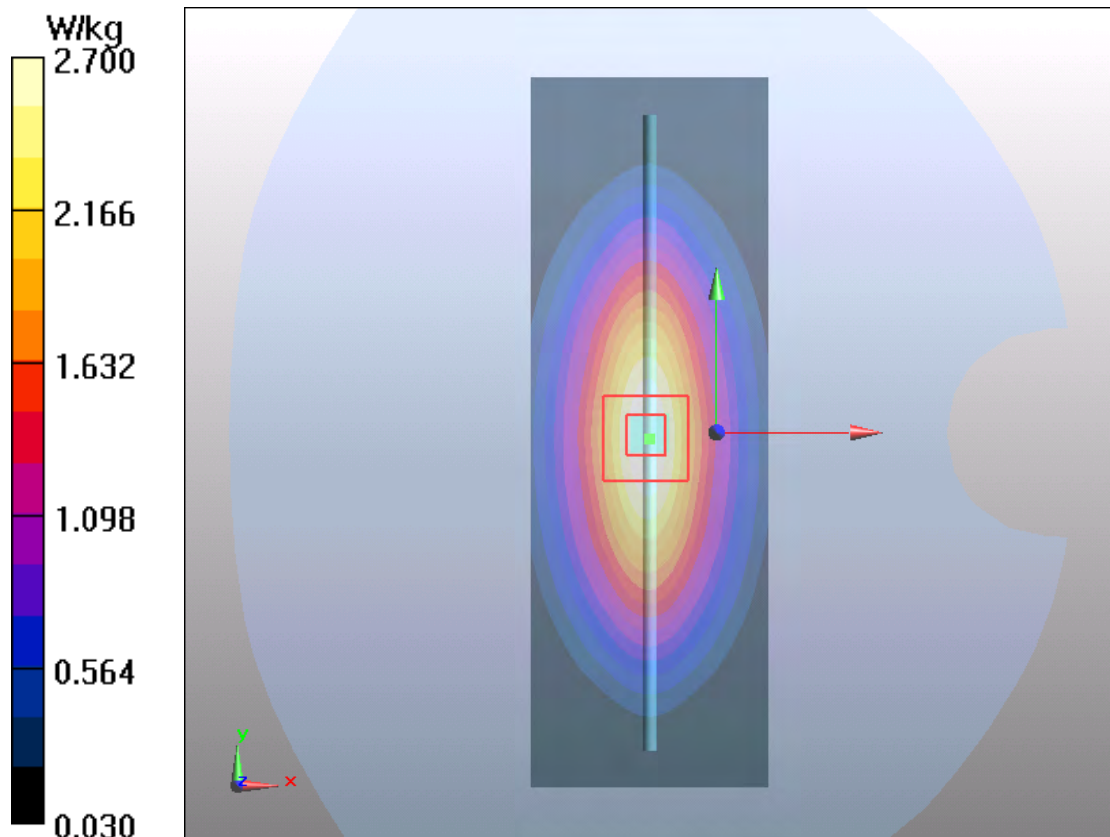
Peak SAR (extrapolated) = 3.67 W/kg

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

Smallest distance from peaks to all points 3 dB below = 16.5 mm

Ratio of SAR at M2 to SAR at M1 = 68.2%

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





**Plot 4 System Performance Check at 835 MHz TSL****DUT: Dipole 835 MHz; Type: D835V2; Serial: D835V2**

Date: 2022/10/15

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

Medium parameters used:  $f = 835$  MHz;  $\sigma = 0.92$  S/m;  $\epsilon_r = 41.4$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(9.34, 9.34, 9.34); Calibrated: 2022/7/8

Electronics: DAE4 SN1317; Calibrated: 2022/6/13

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

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

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

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

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

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

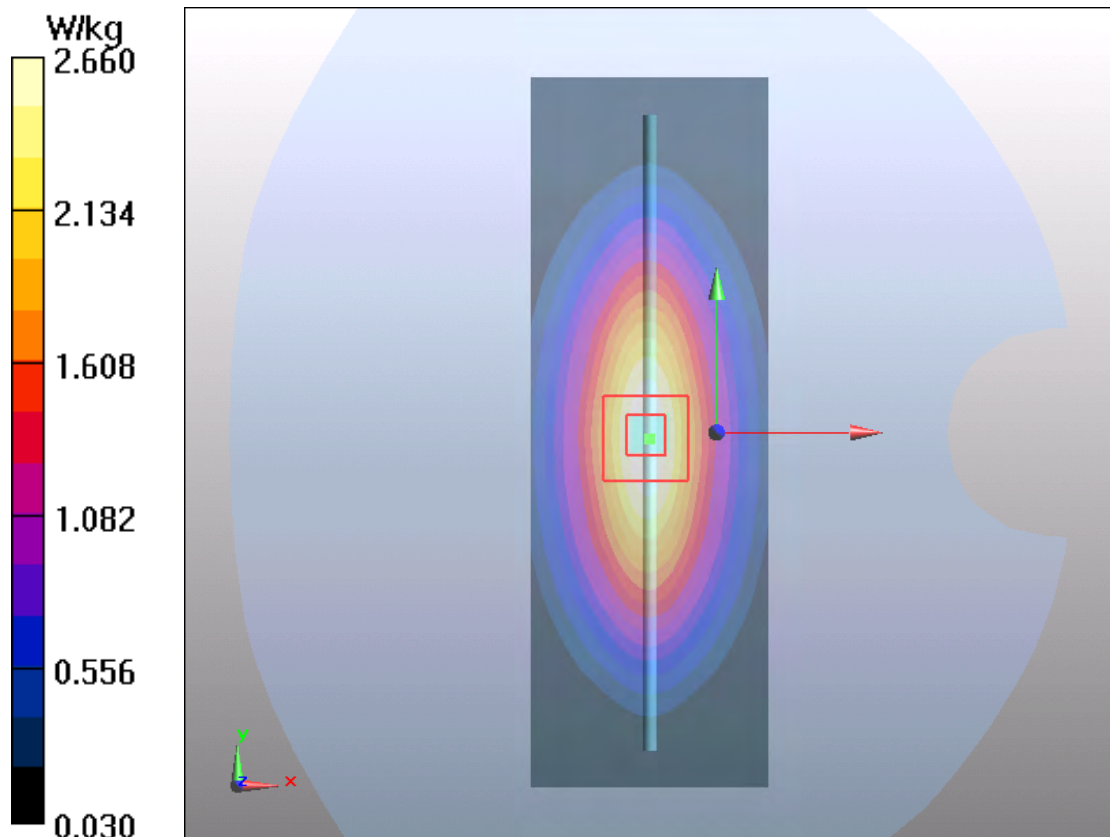
Peak SAR (extrapolated) = 3.67 W/kg

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

Smallest distance from peaks to all points 3 dB below = 16.7 mm

Ratio of SAR at M2 to SAR at M1 = 68.5%

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





**Plot 5 System Performance Check at 835 MHz TSL**

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

Date: 2022/10/17

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

Medium parameters used:  $f = 835 \text{ MHz}$ ;  $\sigma = 0.89 \text{ S/m}$ ;  $\epsilon_r = 41.3$ ;  $\rho = 1000 \text{ kg/m}^3$

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

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(9.34, 9.34, 9.34); Calibrated: 2022/7/8

Electronics: DAE4 SN1317; Calibrated: 2022/6/13

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

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

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

Maximum value of SAR (interpolated) = 2.55 W/kg

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

Reference Value = 55.2 V/m; Power Drift = -0.021 dB

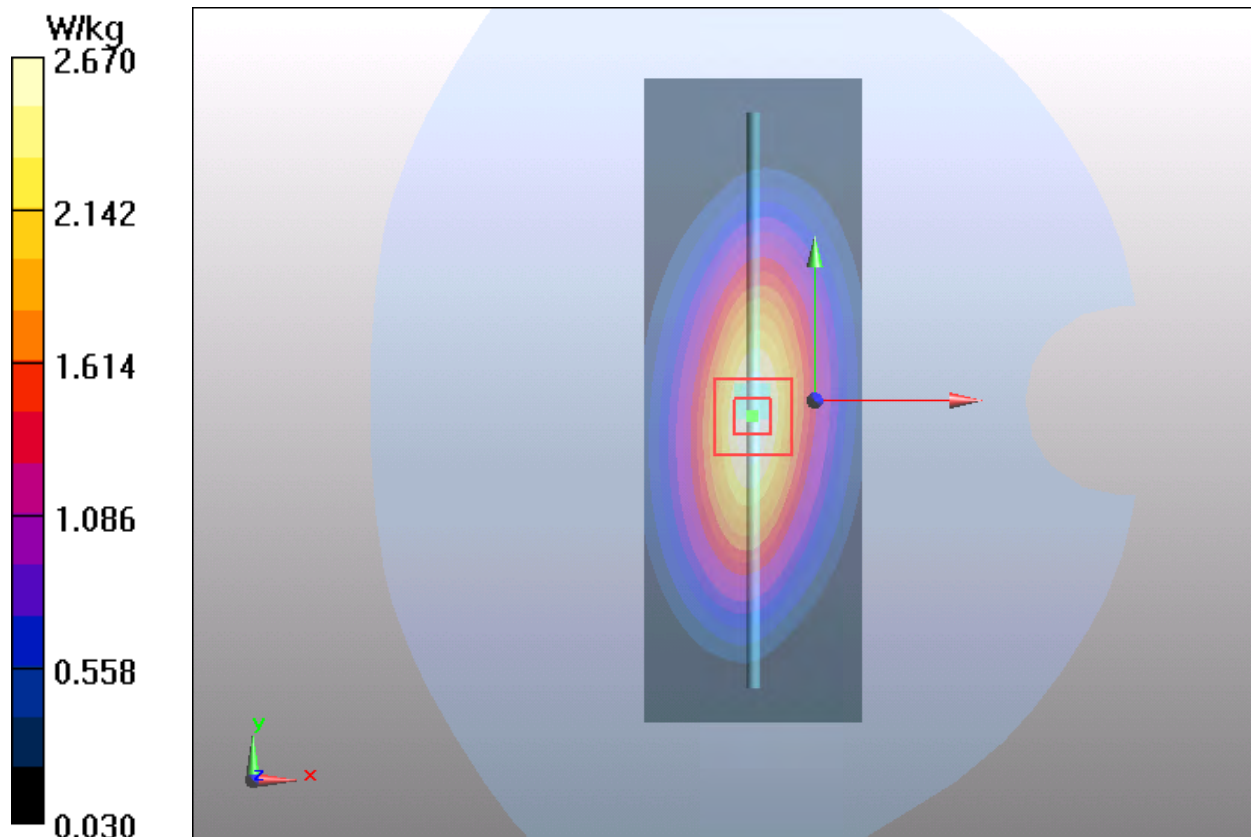
Peak SAR (extrapolated) = 3.79 W/kg

**SAR(1 g) = 2.51 W/kg; SAR(10 g) = 1.54 W/kg**

Smallest distance from peaks to all points 3 dB below = 16.4 mm

Ratio of SAR at M2 to SAR at M1 = 68.6%

Maximum value of SAR (measured) = 2.67 W/kg



**Plot 6 System Performance Check at 835 MHz TSL**

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

Date: 2022/10/18

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

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

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

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(9.34, 9.34, 9.34); Calibrated: 2022/7/8

Electronics: DAE4 SN1317; Calibrated: 2022/6/13

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

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

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

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

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

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

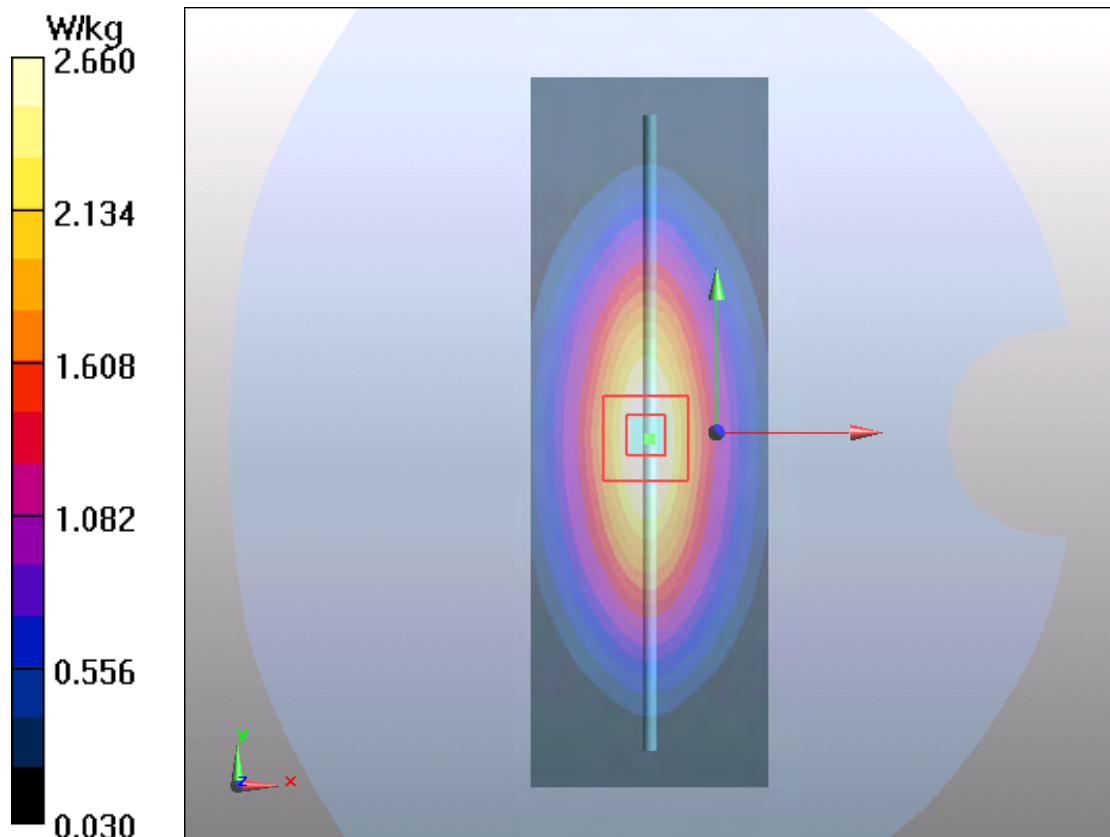
Peak SAR (extrapolated) = 3.67 W/kg

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

Smallest distance from peaks to all points 3 dB below = 16.8 mm

Ratio of SAR at M2 to SAR at M1 = 68.6%

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



**Plot 7 System Performance Check at 1750 MHz TSL**

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

Date: 2022/10/12

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

Medium parameters used:  $f = 1750 \text{ MHz}$ ;  $\sigma = 1.34 \text{ S/m}$ ;  $\epsilon_r = 40.2$ ;  $\rho = 1000 \text{ kg/m}^3$

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

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

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

Electronics: DAE4 SN1317; Calibrated: 2022/6/13

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

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

**d=10mm, Pin=250mW/Area Scan (5x8x1):** Measurement grid:  $dx=15\text{mm}$ ,  $dy=15\text{mm}$

Maximum value of SAR (measured) =  $9.38 \text{ W/kg}$

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

Reference Value =  $80 \text{ V/m}$ ; Power Drift =  $0.075 \text{ dB}$

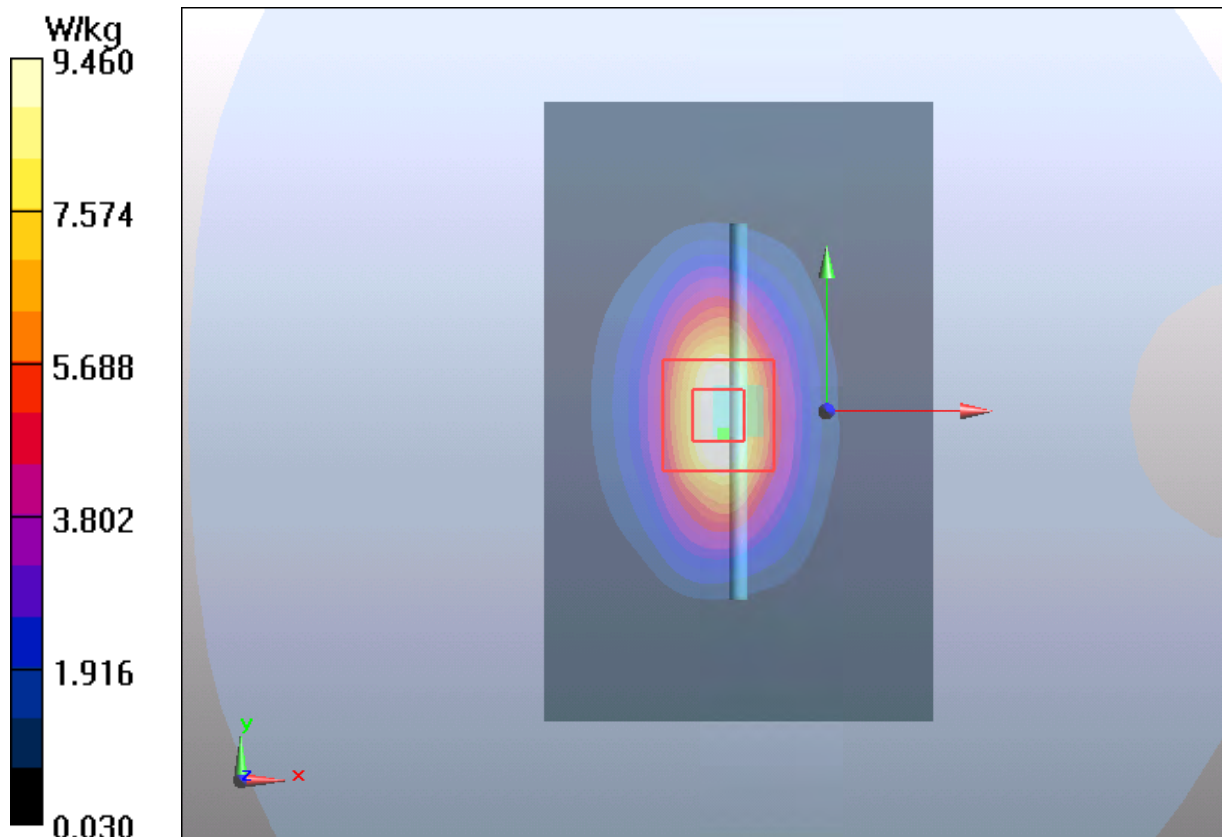
Peak SAR (extrapolated) =  $15.5 \text{ W/kg}$

**SAR(1 g) =  $8.95 \text{ W/kg}$ ; SAR(10 g) =  $4.5 \text{ W/kg}$**

Smallest distance from peaks to all points 3 dB below =  $10.2\text{mm}$

Ratio of SAR at M2 to SAR at M1 =  $53.3\%$

Maximum value of SAR (measured) =  $9.46 \text{ W/kg}$



**Plot 8 System Performance Check at 1750 MHz TSL****DUT: Dipole 1750 MHz; Type: D1750V2; Serial: D1750V2**

Date: 2022/10/16

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

Medium parameters used:  $f = 1750$  MHz;  $\sigma = 1.34$  S/m;  $\epsilon_r = 40.1$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

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

Electronics: DAE4 SN1317; Calibrated: 2022/6/13

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

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

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

Maximum value of SAR (measured) = 9.77 W/kg

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

dz=5mm

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

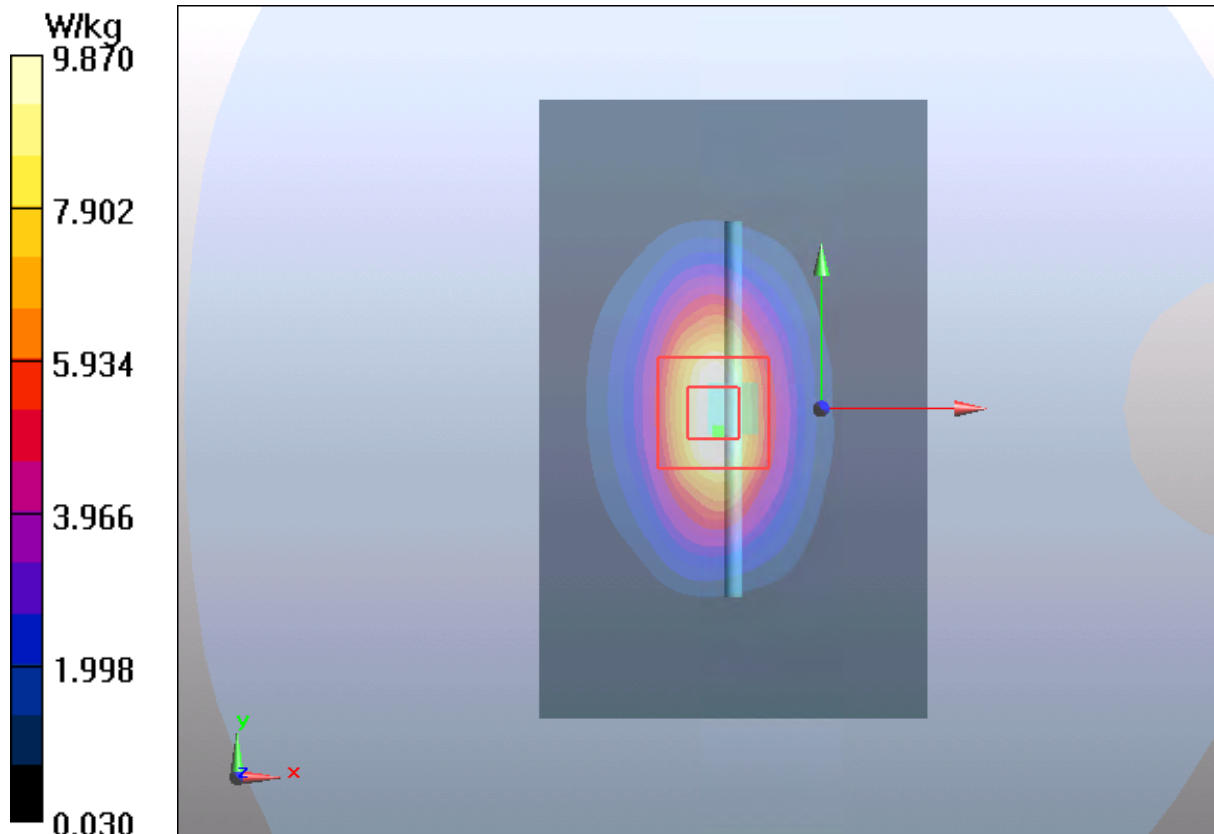
Peak SAR (extrapolated) = 15.51 W/kg

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

Smallest distance from peaks to all points 3 dB below = 10.1mm

Ratio of SAR at M2 to SAR at M1 = 53.4%

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



**Plot 9 System Performance Check at 1900 MHz TSL**

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

Date: 2022/10/19

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

Medium parameters used:  $f = 1900$  MHz;  $\sigma = 1.41$  S/m;  $\epsilon_r = 40.1$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

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

Electronics: DAE4 SN1317; Calibrated: 2022/6/13

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

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

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

Maximum value of SAR (measured) = 10.3 W/kg

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

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

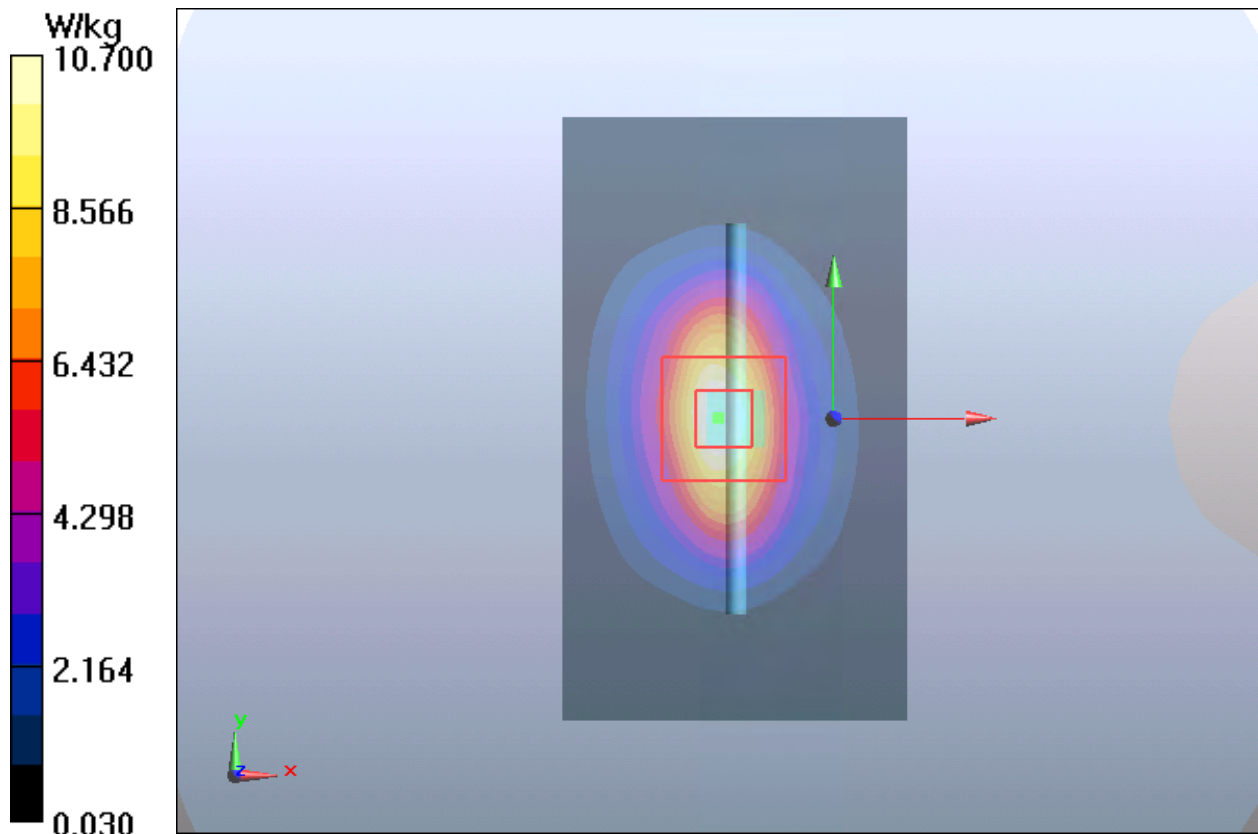
Peak SAR (extrapolated) = 17.8 W/kg

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

Smallest distance from peaks to all points 3 dB below = 10.3mm

Ratio of SAR at M2 to SAR at M1 = 53.6%

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





**Plot 10 System Performance Check at 1900 MHz TSL**

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

Date: 2022/10/20

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

Medium parameters used:  $f = 1900$  MHz;  $\sigma = 1.43$  S/m;  $\epsilon_r = 40.2$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

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

Electronics: DAE4 SN1317; Calibrated: 2022/6/13

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

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

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

Maximum value of SAR (measured) = 10.23 W/kg

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

dz=5mm

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

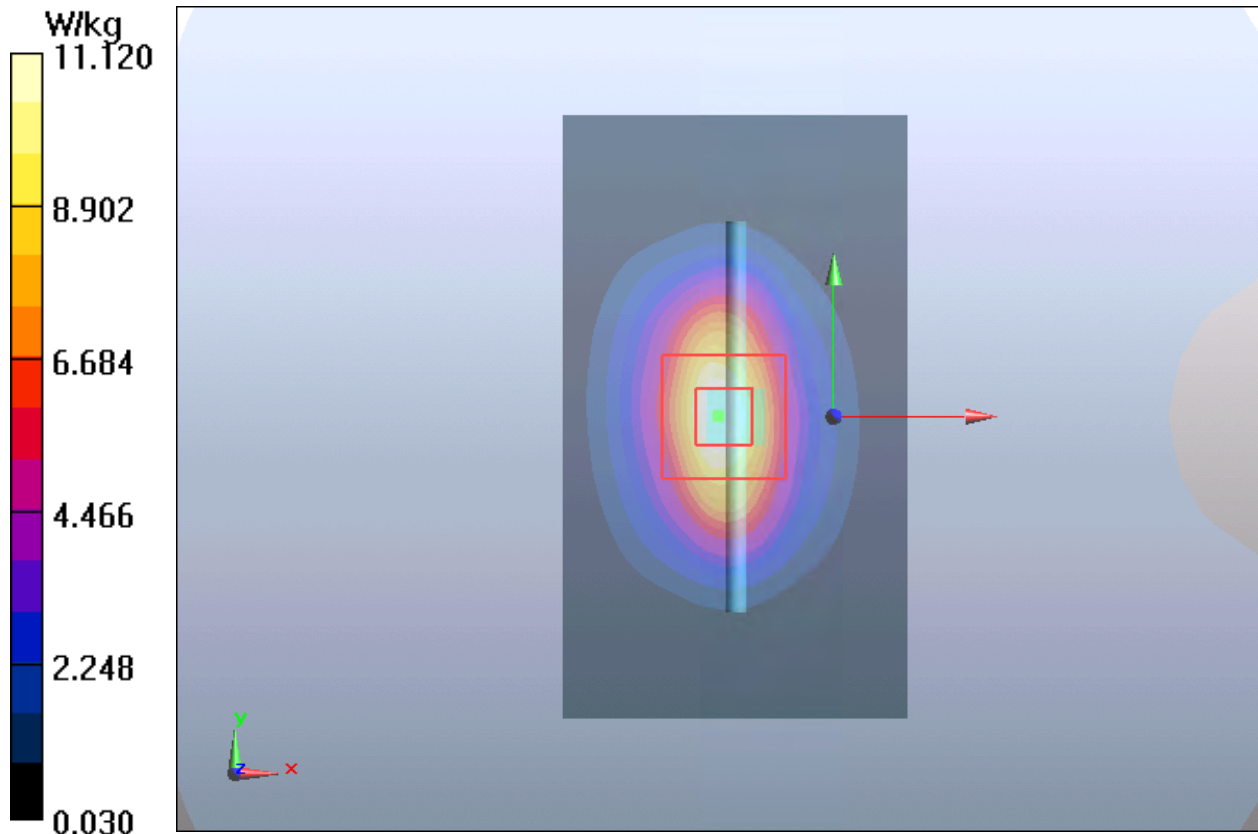
Peak SAR (extrapolated) = 17.8 W/kg

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

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

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

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



**Plot 11 System Performance Check at 1900 MHz****DUT: Dipole 1900 MHz; Type: D1900V2; Serial: D1900V2**

Date: 2022/10/21

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

Medium parameters used:  $f = 1900$  MHz;  $\sigma = 1.40$  S/m;  $\epsilon_r = 40.0$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

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

Electronics: DAE4 SN1317; Calibrated: 2022/6/13

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

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

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

Maximum value of SAR (measured) = 10.9 W/kg

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

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

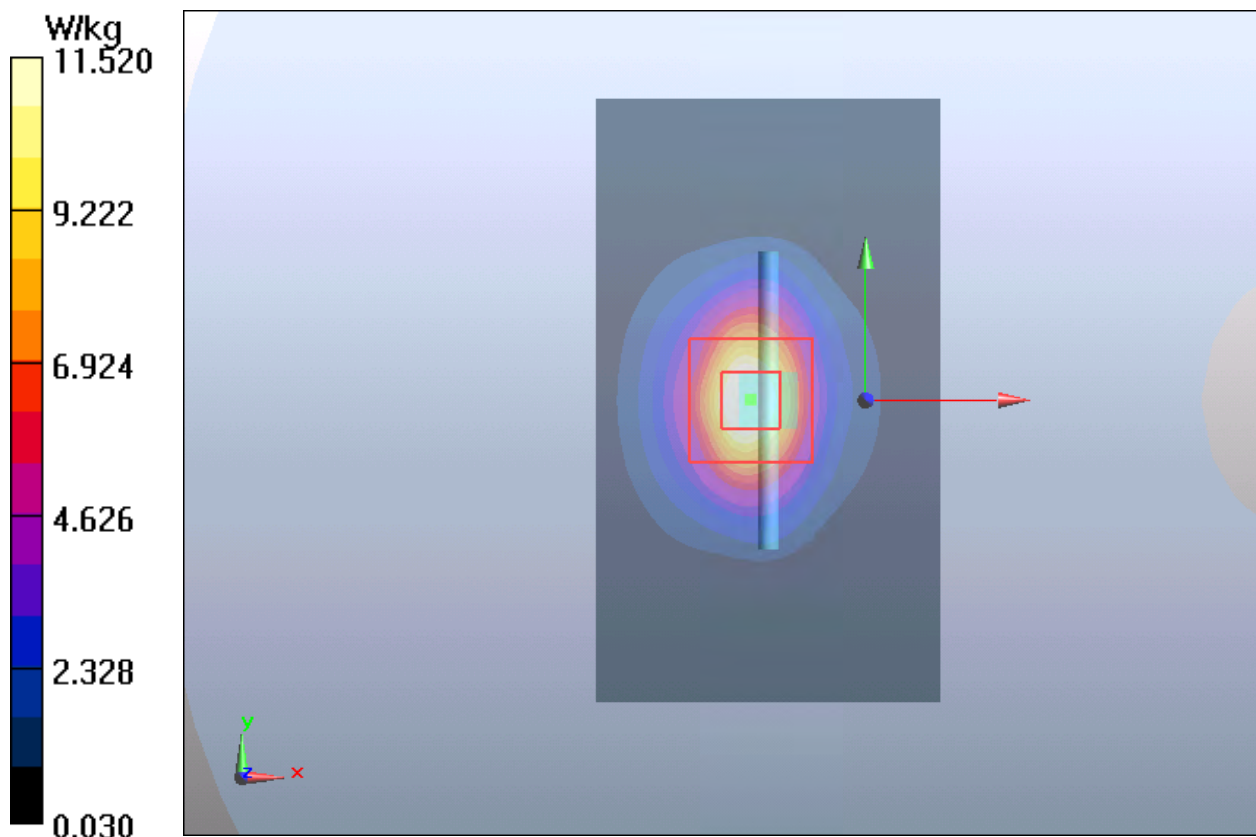
Peak SAR (extrapolated) = 20.1 W/kg

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

Smallest distance from peaks to all points 3 dB below = 10.3 mm

Ratio of SAR at M2 to SAR at M1 = 51.7%

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



**Plot 12 System Performance Check at 2450 MHz TSL**

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

Date: 2022/10/22

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

Medium parameters used:  $f = 2450$  MHz;  $\sigma = 1.81$  S/m;  $\epsilon_r = 38.6$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

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

Electronics: DAE4 SN1317; Calibrated: 2022/6/13

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

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

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

Maximum value of SAR (measured) = 15.2 W/kg

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

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

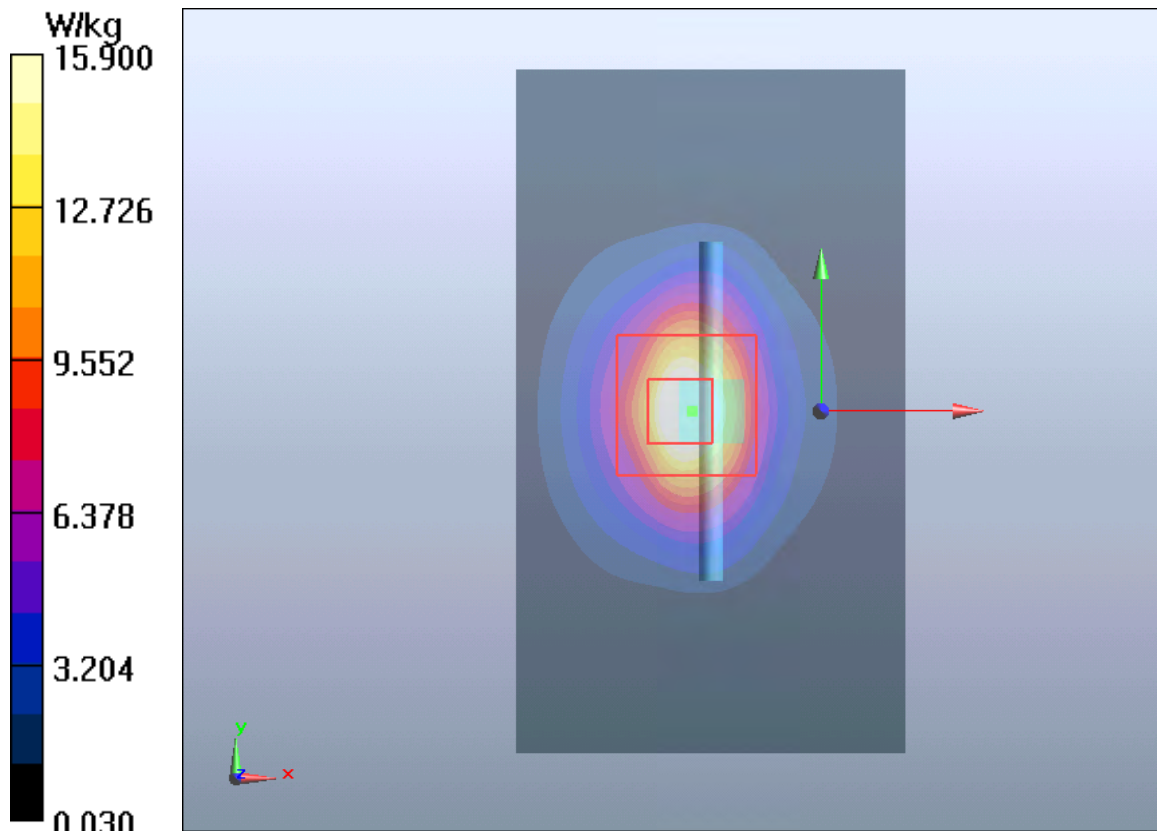
Peak SAR (extrapolated) = 30 W/kg

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

Smallest distance from peaks to all points 3 dB below = 8.8 mm

Ratio of SAR at M2 to SAR at M1 = 47.1%

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





**Plot 13 System Performance Check at 2600 MHz TSL**

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

Date: 2022/10/24

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

Medium parameters used:  $f = 2600$  MHz;  $\sigma = 2.01$  S/m;  $\epsilon_r = 38.2$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

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

Electronics: DAE4 SN1317; Calibrated: 2022/6/13

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

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

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

Maximum value of SAR (measured) = 15.439 W/kg

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

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

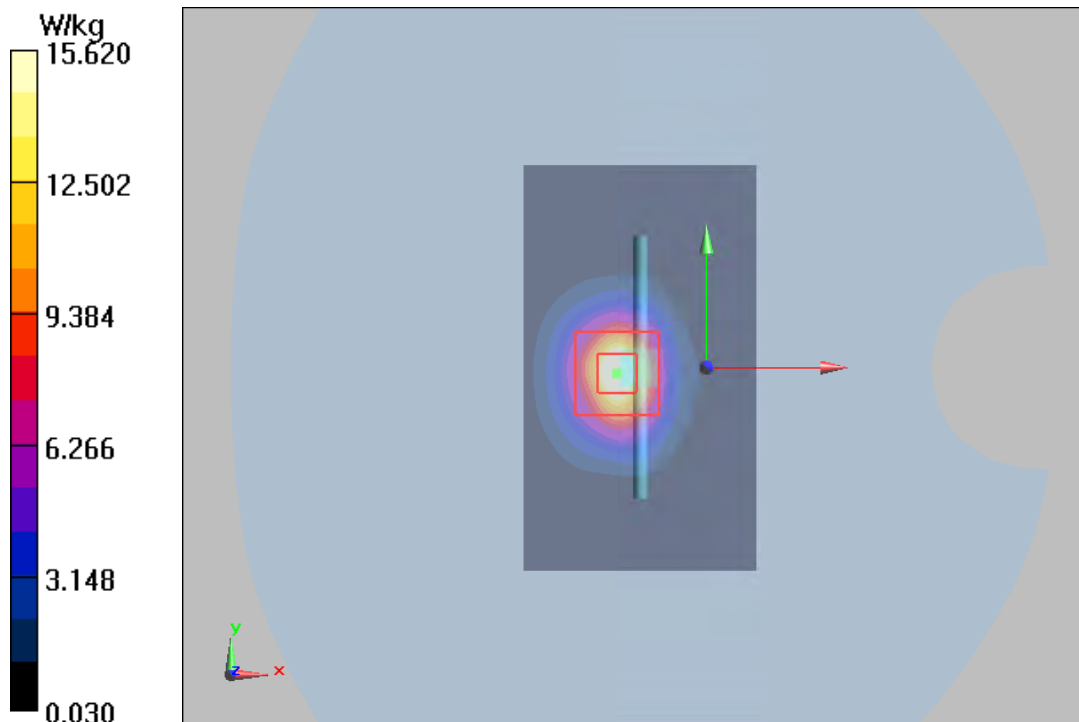
Peak SAR (extrapolated) = 31.858 W/kg

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

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

Ratio of SAR at M2 to SAR at M1 = 44.1%

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



**Plot 14 System Performance Check at 2600 MHz TSL****DUT: Dipole 2600 MHz; Type: D2600V2; Serial: D2600V2**

Date: 2022/10/25

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

Medium parameters used:  $f = 2600$  MHz;  $\sigma = 1.94$  S/m;  $\epsilon_r = 38.4$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

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

Electronics: DAE4 SN1317; Calibrated: 2022/6/13

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

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

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

Maximum value of SAR (measured) = 15.59 W/kg

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

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

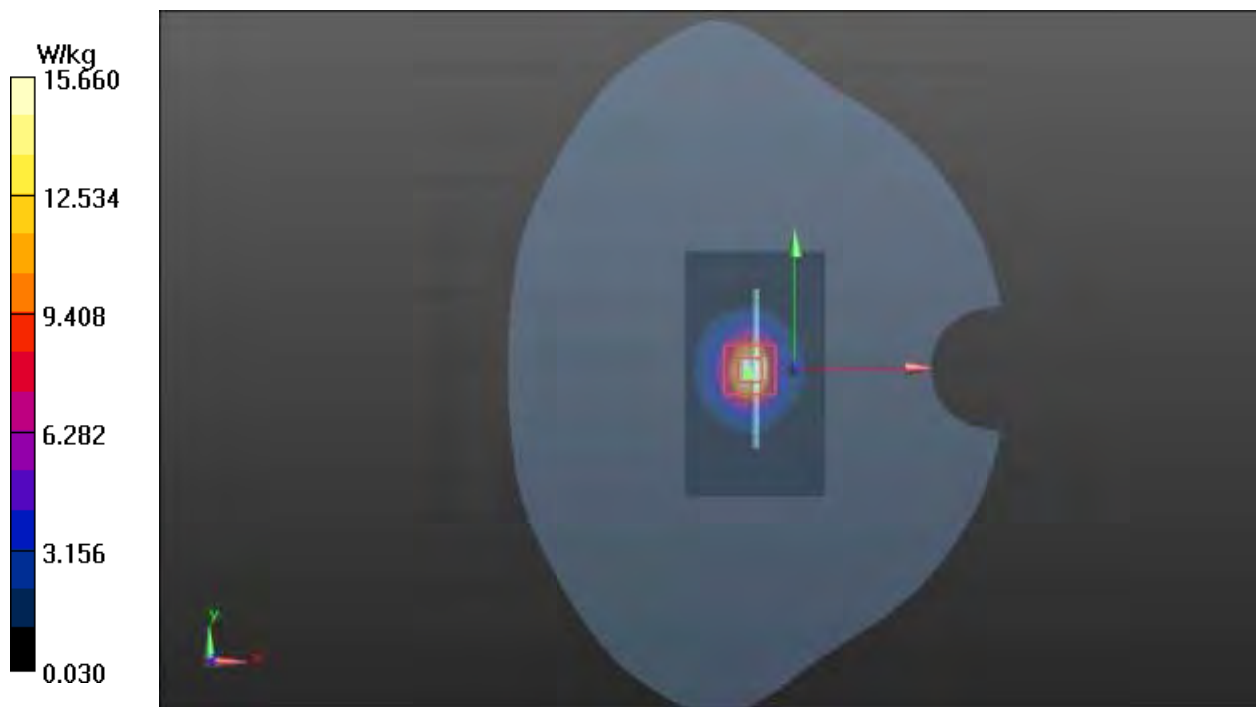
Peak SAR (extrapolated) = 31.858 W/kg

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

Smallest distance from peaks to all points 3 dB below = 9.3 mm

Ratio of SAR at M2 to SAR at M1 = 44.2%

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



**Plot 15 System Performance Check at 2600 MHz TSL**

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

Date: 2022/10/26

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

Medium parameters used:  $f = 2600$  MHz;  $\sigma = 1.99$  S/m;  $\epsilon_r = 38.3$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

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

Electronics: DAE4 SN1317; Calibrated: 2022/6/13

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

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

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

Maximum value of SAR (measured) = 15.32 W/kg

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

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

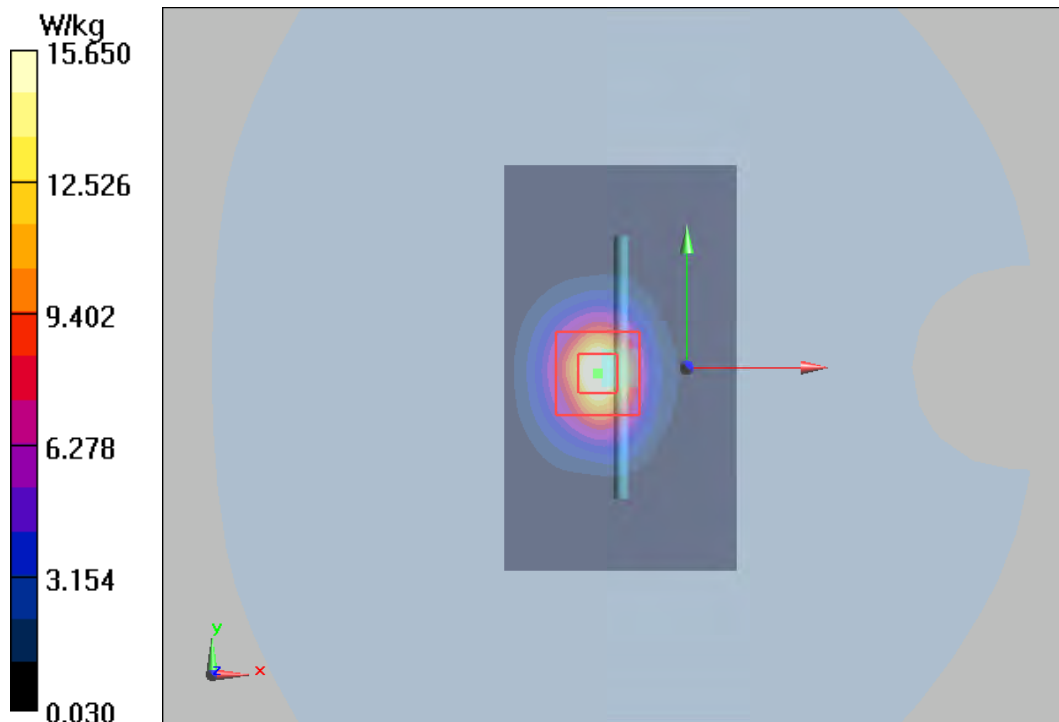
Peak SAR (extrapolated) = 31.85 W/kg

**SAR(1 g) = 13.94 W/kg; SAR(10 g) = 6.11 W/kg**

Smallest distance from peaks to all points 3 dB below = 9.4 mm

Ratio of SAR at M2 to SAR at M1 = 44.1%

Maximum value of SAR (measured) = 15.65 W/kg



**Plot 16 System Performance Check at 2600 MHz TSL****DUT: Dipole 2600 MHz; Type: D2600V2; Serial: D2600V2**

Date: 2022/10/27

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

Medium parameters used:  $f = 2600$  MHz;  $\sigma = 1.95$  S/m;  $\epsilon_r = 38.5$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

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

Electronics: DAE4 SN1317; Calibrated: 2022/6/13

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

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

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

Maximum value of SAR (measured) = 15.59 W/kg

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

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

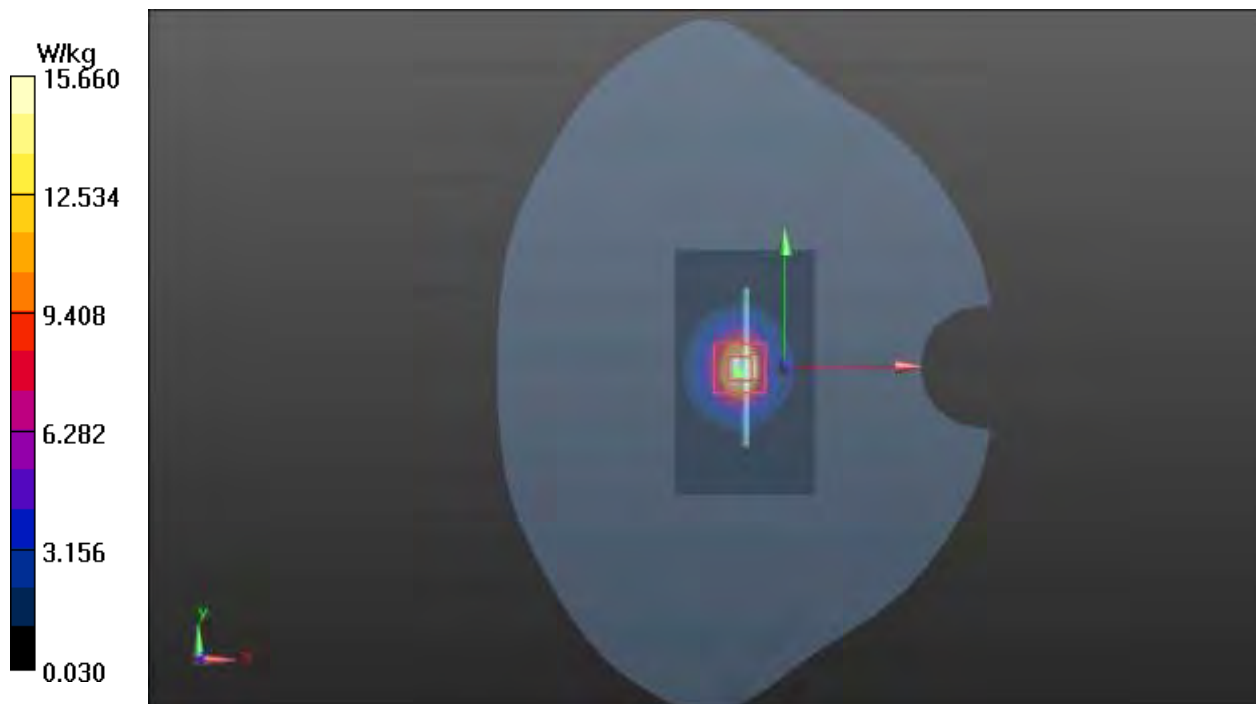
Peak SAR (extrapolated) = 31.858 W/kg

**SAR(1 g) = 13.9 W/kg; SAR(10 g) = 6.09 W/kg**

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

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

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



**Plot 17 System Performance Check at 2600 MHz TSL****DUT: Dipole 2600 MHz; Type: D2600V2; Serial: D2600V2**

Date: 2022/10/28

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

Medium parameters used:  $f = 2600$  MHz;  $\sigma = 1.96$  S/m;  $\epsilon_r = 38.2$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

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

Electronics: DAE4 SN1317; Calibrated: 2022/6/13

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

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

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

Maximum value of SAR (measured) = 15.439 W/kg

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

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

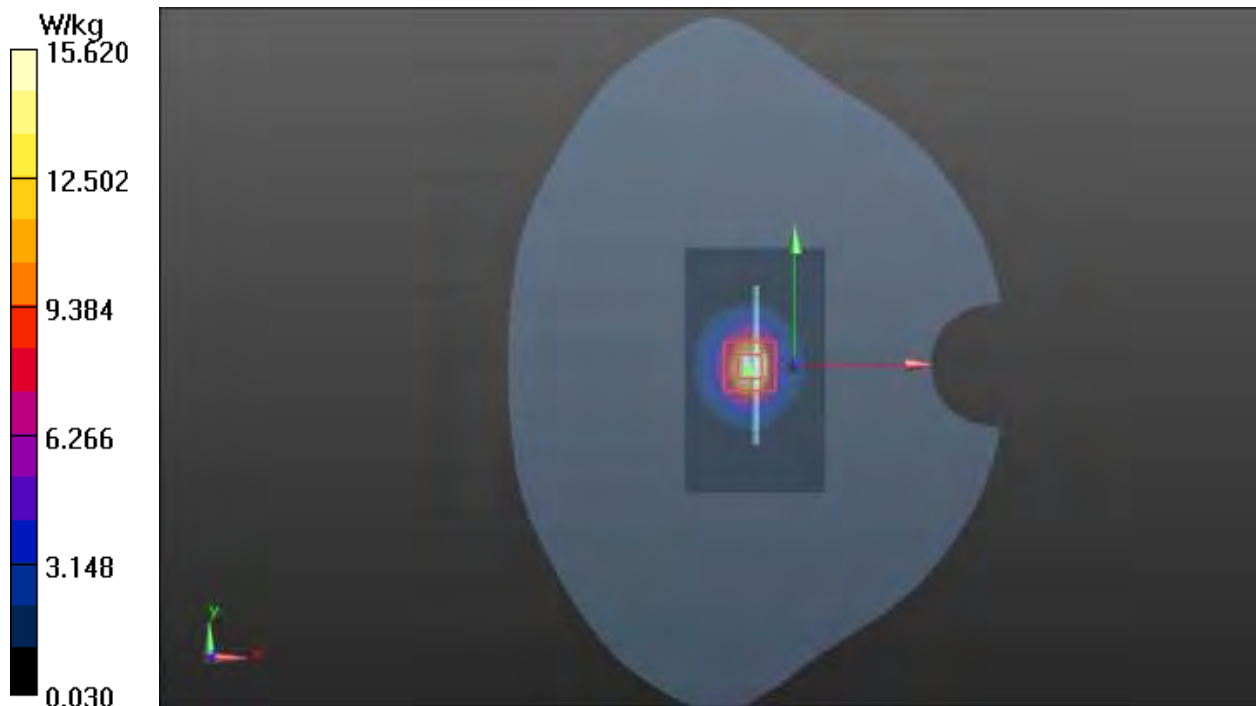
Peak SAR (extrapolated) = 31.858 W/kg

**SAR(1 g) = 13.9 W/kg; SAR(10 g) = 6.08 W/kg**

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

Ratio of SAR at M2 to SAR at M1 = 44.3%

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



**Plot 18 System Performance Check at 5250 MHz TSL****DUT: Dipole 5250 MHz; Type: D5GHzV2; Serial: D5GHzV2**

Date: 2022/10/23

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

Medium parameters used:  $f = 5250$  MHz;  $\sigma = 4.80$  S/m;  $\epsilon_r = 35.5$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(5.48, 5.48, 5.48); Calibrated: 2022/7/8

Electronics: DAE4 SN1317; Calibrated: 2022/6/13

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

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

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

Maximum value of SAR (measured) = 9.14 W/kg

**d=10mm, Pin=100mW/Zoom Scan (8x8x7)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

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

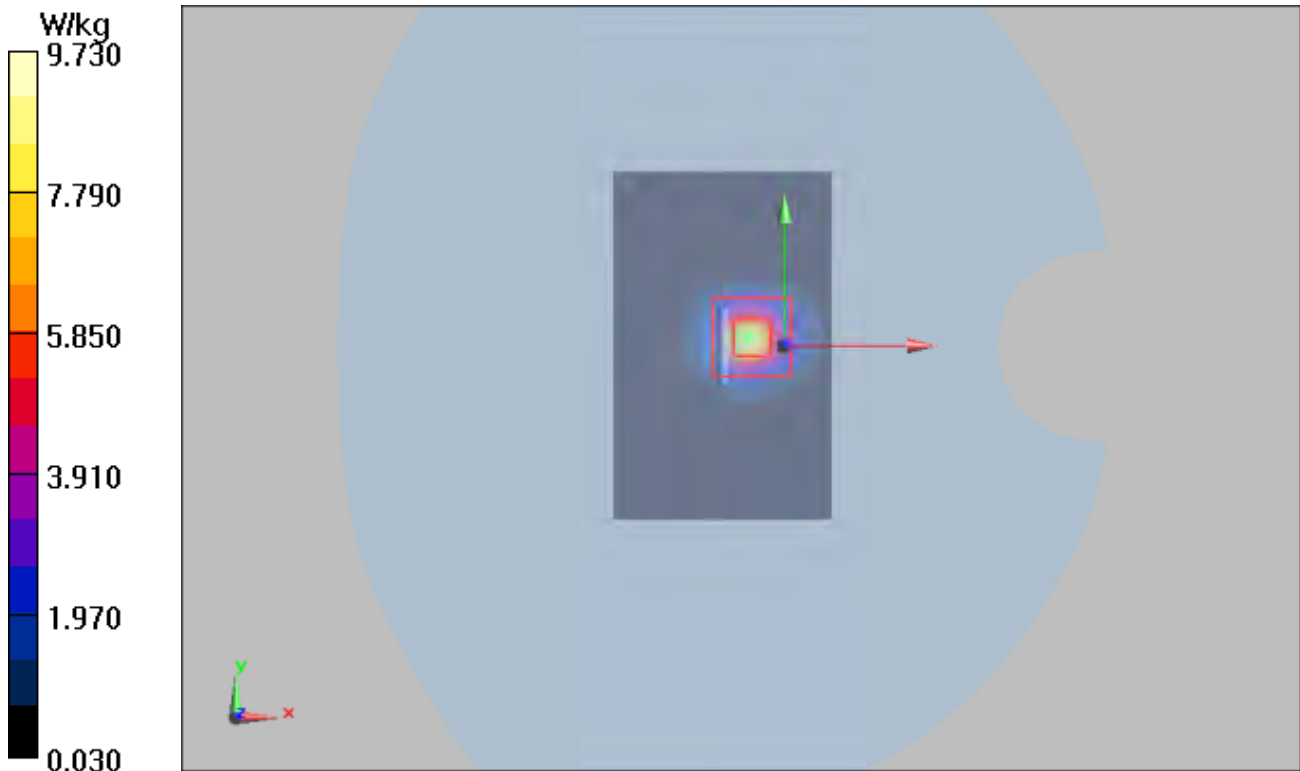
Peak SAR (extrapolated) = 52.2 W/kg

**SAR(1 g) = 7.87 W/kg; SAR(10 g) = 2.25 W/kg**

Smallest distance from peaks to all points 3 dB below = 7.3 mm

Ratio of SAR at M2 to SAR at M1 = 63.5%

Maximum value of SAR (measured) = 9.73 W/kg



**Plot 19 System Performance Check at 5250 MHz TSL**

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

Date: 2022/10/31

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

Medium parameters used:  $f = 5200$  MHz;  $\sigma = 4.74$  S/m;  $\epsilon_r = 35.7$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(5.48, 5.48, 5.48); Calibrated: 2022/7/8

Electronics: DAE4 SN1317; Calibrated: 2022/6/13

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

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

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

Maximum value of SAR (interpolated) = 9.4 W/kg

**d=10mm, Pin=100mW/Zoom Scan (8x8x7)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

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

Peak SAR (extrapolated) = 52.2 W/kg

**SAR(1 g) = 7.54 W/kg; SAR(10 g) = 2.27 W/kg**

Smallest distance from peaks to all points 3 dB below = 7.5 mm

Ratio of SAR at M2 to SAR at M1 = 63.4%

Maximum value of SAR (measured) = 9.64 W/kg

