SAR TEST REPORT

Applicant	TCL Communication Ltd.
FCC ID	2ACCJB231
Product	Tablet PC
Brand	TCL
Model	8188S
Report No.	EFTA25022164-IE-01-S1
Issue Date	March 31, 2025

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

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1 Test Laboratory

1.1 Notes of the Test Report

This report shall not be reproduced in full or partial, without the written approval of **Eurofins 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)

Eurofins 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)

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

1.3 Testing Location

Company:	Eurofins TA Technology (Shanghai) Co., Ltd.
Address:	Building 3, No.145, Jintang Rd, Pudong Shanghai, P.R.China
City:	Shanghai
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E-mail:	Kain.Xu@cpt.eurofinscn.com

1.4 Laboratory Environment

Temperature	Min. = 18°C, Max. = 25°C
Relative humidity	Min. = 20%, Max. = 80%
Ground system resistance	< 0.5 Ω
Ambient noise is checked and found very low and in compliance with requirement of standards. Reflection of surrounding objects is minimized and in compliance with requirement of standards.	

2 Statement of Compliance

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

Table 1: Highest Reported SAR

Mode	Highest Reported SAR (W/kg)
	1g Body SAR (Separation 0mm)
GSM 850	0.77
GSM 1900	0.76
WCDMA Band II	0.72
WCDMA Band IV	0.89
WCDMA Band V	0.77
LTE Band 2/25	0.71
LTE Band 5	0.70
LTE Band 7	0.76
LTE Band 12/17	0.79
LTE Band 13	0.80
LTE Band 14	0.88
LTE Band 26	1.06
LTE Band 30	1.05
LTE Band 41	0.76
LTE Band 4/66	0.73
LTE Band 71	0.78
Wi-Fi (2.4GHz)	0.64
Wi-Fi (5GHz)	0.76
Bluetooth	0.28
Date of Testing: March 3, 2025 ~ March 17, 2025 Date of Sample Received: February 24, 2025	
Note: 1. The device is in compliance with SAR for Uncontrolled Environment /General Population exposure limits (1.6 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 Eurofins 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.	

Note:

1) According to TCB workshop October, 2014 RF Exposure Procedures Update (Overlapping LTE Bands):

SAR for LTE Band 4 (Frequency range 1710-1755 MHz) is covered by LTE Band 66 (Frequency range: 1710-1780 MHz); SAR for LTE Band 25 (Frequency range: 1850 ~ 1915 MHz) is covered by LTE Band 2 (Frequency range 1850 ~ 1910 MHz); SAR for LTE Band 17 (Frequency range: 704 ~ 716 MHz) is covered by LTE Band 12 (Frequency range 699 ~ 716 MHz) due to similar frequency range, same maximum tune up limit and same channel bandwidth.

Table 2: Highest Simultaneous Transmission SAR

Exposure Configuration	Position	1g Body SAR (Separation 0mm)
Highest Simultaneous Transmission SAR (W/kg)	Back Side (LTE 14 + Wi-Fi 2.4GHz + Bluetooth)	1.59
Note: The detail for simultaneous transmission consideration is described in chapter 10.2.		

3 Description of Equipment Under Test

Client Information

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

General Technologies

EUT Stage	Identical Prototype
Model	8188S
IMEI	354037970001412
Hardware Version	05
Software Version	8P11
Antenna Type	Internal Antenna
Power Class	GSM 850: 4 GSM 1900: 1 WCDMA Band II/IV/V: 3 LTE 2/4/5/7/12/13/14/17/25/26/30/41/66/71: 3
Power Level	GSM 850: level 5 GSM 1900: level 0 WCDMA Band II/IV/V: all up bits LTE 2/4/5/7/12/13/14/17/25/26/30/41/66/71: max power
EUT Accessory	
Battery	Manufacturer: Veken Model: TLp058C8
Note: The EUT is sent from the applicant to Eurofins TA and the information of the EUT is declared by the applicant.	

Wireless Technology and Frequency Range

Wireless Technology		Modulation	Operating mode	Tx (MHz)	Rx (MHz)
GSM	850	GPRS(GMSK) EGPRS(GMSK,8PSK)	☐Multi-slot Class:8-1UP ☐Multi-slot Class:10-2UP ☒Multi-slot Class:12-4UP ☐Multi-slot Class:33-4UP	824 ~ 849	869 ~ 894
	1900			1850 ~ 1910	1930 ~ 1990
	Does this device support DTM (Dual Transfer Mode)? ☐Yes ☒No				
WCDMA	Band II	QPSK, 16QAM	DL Category: 24 UL Category: 7	1850 ~ 1910	1930 ~ 1990
	Band IV			1710 ~ 1755	2110 ~ 2155
	Band V			824 ~ 849	869 ~ 894
LTE	FDD 2	QPSK, 16QAM	Rel.11 /Category 4	1850 ~ 1910	1930 ~ 1990
	FDD 4			1710 ~ 1755	2110 ~ 2155
	FDD 5			824 ~ 849	869 ~ 894
	FDD 7			2500 ~ 2570	2620 ~ 2690
	FDD 12			699 ~ 716	729 ~ 746
	FDD 13			777 ~ 787	746 ~ 756
	FDD 14			788 ~ 798	758 ~ 768
	FDD 17			704 ~ 716	734 ~ 746
	FDD 25			1850 ~ 1915	1930 ~ 1995
	FDD 26			814 ~ 849	859 ~ 894
	FDD 30			2305 ~ 2315	2350 ~ 2360
	TDD 41			2496 ~ 2690	2496 ~ 2690
	FDD 66			1710 ~ 1780	2110 ~ 2180
	FDD 71			663 ~ 698	617 ~ 652
	Does this device support Carrier Aggregation (CA) ☒Yes downlink only ☐No				
	Does this device support SV-LTE (1xRTT-LTE)? ☐Yes ☒No				
Bluetooth	2.4GHz	Version 5.2 BR/EDR + LE		2402 ~2480	2402 ~2480
Wi-Fi	2.4GHz	DSSS, OFDM	802.11b/g/n HT20	2412 ~ 2462	2412 ~ 2462
		OFDM	802.11n HT40	2422 ~ 2452	2422 ~ 2452
	5GHz	OFDM	802.11a/n HT20/ HT40/ ac VHT20/ VHT40/ VHT80	5150 ~ 5250 5250 ~ 5350 5470 ~ 5725 5725 ~ 5850	5150 ~ 5250 5250 ~ 5350 5470 ~ 5725 5725 ~ 5850
	Does this device support MIMO ☐Yes ☒No				

4 Test Specification, Methods and Procedures

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

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

5 Operational Conditions during Test

5.1 Test Positions

According to KDB 616217 D04, SAR evaluation is required for back surface and edges of the devices. The back surface and edges of the tablet are tested with the tablet touching the phantom. Exposures from antennas through the front surface of the display section of a tablet are generally limited to the user's hands. Exposures to hands for typical consumer transmitters used in tablets are not expected to exceed the extremity SAR limit; therefore, SAR evaluation for the front surface of tablet display screens are generally not necessary. When voice mode is supported on a tablet and it is limited to speaker mode or headset operations only, additional SAR testing for this type of voice use is not required.

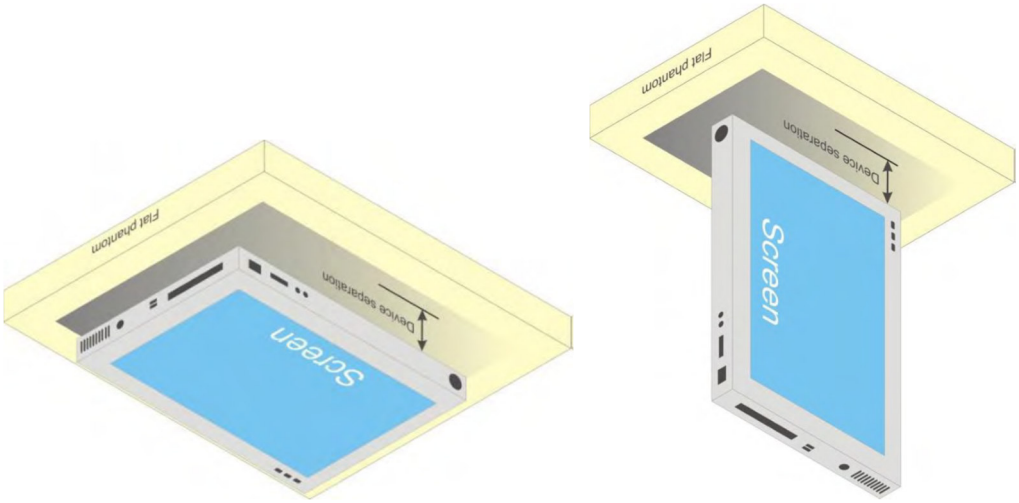


Fig-4.1 Illustration for Tablet Setup

According to KDB 447498 D01, the SAR test exclusion condition is based on source-based time-averaged maximum conducted output power, adjusted for tune-up tolerance, and the minimum test separation distance required for the exposure conditions. The SAR exclusion threshold is determined by the following formula.

(1) The SAR exclusion threshold for distances ≤50mm is defined by the following equation:

$$\frac{\text{(max. power of channel, including tune-up tolerance, mW)}}{\text{(min. test separation distance, mm)}} * \sqrt{\text{Frequency (GHz)}} \leq 3.0$$

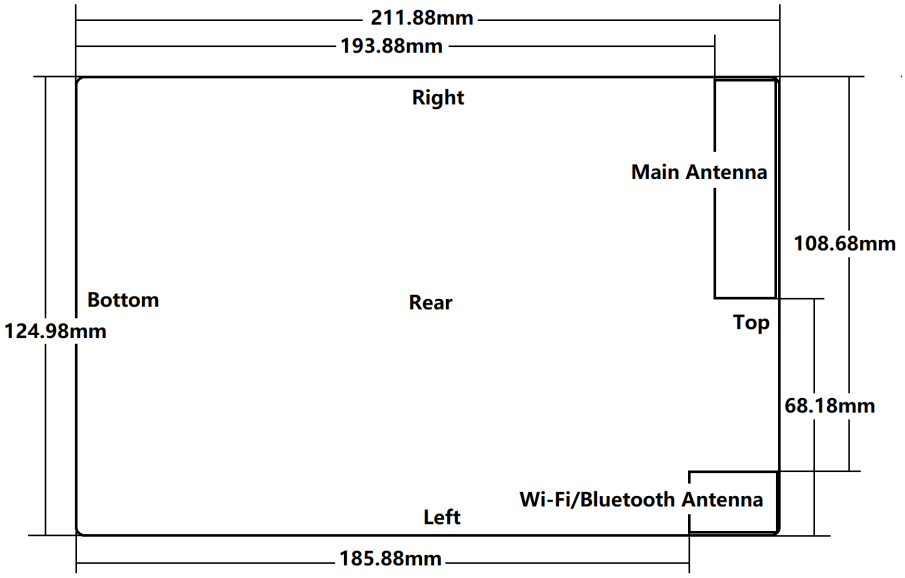
(2) The SAR exclusion threshold for distances >50mm is defined by the following equation, as illustrated in KDB 447498 D01 Appendix B:

a) at 100 MHz to 1500 MHz

[Power allowed at numeric Threshold at 50 mm in step 1) + (test separation distance - 50 mm) · ($f_{(MHz)}$/150)] mW

b) at > 1500 MHz and ≤ 6 GHz

[Power allowed at numeric Threshold at 50 mm in step 1) + (test separation distance - 50 mm) ·10] mW



Band	Frequency (MHz)	Max. Tune-up Power (dBm)	Back Side			Left Edge			Right Edge			Top Edge			Bottom Edge		
			Ant. To Surgace (mm)	Evaluation	Conclusion	Ant. To Surgace (mm)	Evaluation	Conclusion	Ant. To Surgace (mm)	Evaluation	Conclusion	Ant. To Surgace (mm)	Evaluation	Conclusion	Ant. To Surgace (mm)	Evaluation	Conclusion
GSM 850	824	33.50	0	406.44	Yes	68.18	140.51	Yes	0	406.44	Yes	0	406.44	Yes	193.88	831.02	Yes
GSM 1900	1850	30.50	0	305.22	Yes	68.18	212.32	Yes	0	305.22	Yes	0	305.22	Yes	193.88	1469.32	No
WCDMA II	1850	24.00	0	68.33	Yes	68.18	188.63	Yes	0	68.33	Yes	0	68.33	Yes	193.88	1445.63	No
WCDMA IV	1710	24.00	0	65.69	Yes	68.18	188.37	Yes	0	65.69	Yes	0	65.69	Yes	193.88	1445.37	No
WCDMA V	824	24.00	0	45.60	Yes	68.18	104.43	Yes	0	45.60	Yes	0	45.60	Yes	193.88	794.94	No
LTE 2	1850	24.00	0	68.33	Yes	68.18	188.63	Yes	0	68.33	Yes	0	68.33	Yes	193.88	1445.63	No
LTE 4	1710	24.00	0	65.69	Yes	68.18	188.37	Yes	0	65.69	Yes	0	65.69	Yes	193.88	1445.37	No
LTE 5	824	24.00	0	45.60	Yes	68.18	104.43	Yes	0	45.60	Yes	0	45.60	Yes	193.88	794.94	No
LTE 7	2500	24.00	0	79.43	Yes	68.18	189.74	Yes	0	79.43	Yes	0	79.43	Yes	193.88	1446.74	No
LTE 12	699	24.00	0	42.00	Yes	68.18	88.92	Yes	0	42.00	Yes	0	42.00	Yes	193.88	674.68	No
FDD 13	777	24.00	0	44.28	Yes	68.18	98.60	Yes	0	44.28	Yes	0	44.28	Yes	193.88	749.73	No
FDD 14	788	24.00	0	44.60	Yes	68.18	99.97	Yes	0	44.60	Yes	0	44.60	Yes	193.88	760.31	No
FDD 17	704	24.00	0	42.15	Yes	68.18	89.54	Yes	0	42.15	Yes	0	42.15	Yes	193.88	679.49	No
LTE 25	1850	24.00	0	68.33	Yes	68.18	188.63	Yes	0	68.33	Yes	0	68.33	Yes	193.88	1445.63	No
LTE 26	814	24.00	0	45.33	Yes	68.18	103.19	Yes	0	45.33	Yes	0	45.33	Yes	193.88	785.32	No
LTE 30	2305	24.00	0	76.27	Yes	68.18	189.43	Yes	0	76.27	Yes	0	76.27	Yes	193.88	1446.43	No
LTE 41	2496	24.00	0	79.37	Yes	68.18	189.74	Yes	0	79.37	Yes	0	79.37	Yes	193.88	1446.74	No
LTE 66	1710	24.00	0	65.69	Yes	68.18	188.37	Yes	0	65.69	Yes	0	65.69	Yes	193.88	1445.37	No
LTE 71	663	24.00	0	40.91	Yes	68.18	84.45	Yes	0	40.91	Yes	0	40.91	Yes	193.88	640.04	No
Wi-Fi 2.4GHz	2412	18.50	0	21.99	Yes	0	21.99	Yes	108.68	589.00	No	0	21.99	Yes	185.88	1361.00	No
Wi-Fi 5GHz	5150	18.50	0	32.13	Yes	0	32.13	Yes	108.68	590.01	No	0	32.13	Yes	185.88	1362.01	No
Bluetooth	2402	9.50	0	2.76	No	0	2.76	No	108.68	587.08	No	0	2.76	No	185.88	1359.08	No

5.2 Measurement Variability

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

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

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

5.3 Test Configuration

5.2.1 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.

5.2.2 WCDMA Test Configuration

5.2.2.1 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.

5.2.2.2 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

5.2.2.3 Release 5 HSDPA Test Configuration

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

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

Table 4: Subtests for WCDMA Release 5 HSDPA

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

Note 1: Δ_{ACK}, Δ_{NACK} and Δ_{CQI}= 8⇔A_{hs} = β_{hs}/β_c=30/15⇔β_{hs}=30/15*β_c

Note 2: CM=1 for β_c/β_d =12/15, β_{hs}/β_c=24/15.

Note 3: For subtest 2 the β_c/β_d ratio of 12/15 for the TFC during the measurement period (TF1, TF0) is achieved by setting the signaled gain factors for the reference TFC (TFC1, TF1) to β_c=11/15 and β_d=15/15.

5.2.2.4 Release 6 HSUPA Test Configuration

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

configuration used for body-worn accessory measurements is tested for next to the ear head exposure.

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

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

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

Note 1: Δ_{ACK}, ΔNACK and Δ_{CQI} = 8 $\Leftrightarrow$ A_{hs} = β_{hs}/β_c = 30/15 $\Leftrightarrow\beta_{hs}$= 30/15 *$\beta_c$.
Note 2: CM = 1 for β_c/β_d =12/15, β_{hs}/β_c =24/15. For all other combinations of DPDCH, DPCCH, HS- DPCCH, E-DPDCH and E-DPCCH the MPR is based on the relative CM difference.
Note 3: For subtest 1 the β_c/β_d ratio of 11/15 for the TFC during the measurement period (TF1, TF0) is achieved by setting the signaled gain factors for the reference TFC (TF1, TF1) to β_c = 10/15 and β_d = 15/15.
Note 4: For subtest 5 the β_c/β_d ratio of 15/15 for the TFC during the measurement period (TF1, TF0) is achieved by setting the signaled gain factors for the reference TFC (TF1, TF1) to β_c = 14/15 and β_d = 15/15.
Note 5: Testing UE using E-DPDCH Physical Layer category 1 Sub-test 3 is not required according to TS 25.306 Figure 5.1g.
Note 6: β_{ed} cannot be set directly; it is set by Absolute Grant Value.

Table 6: HSUPA UE Category

UE E-DCH Category	Maximum E-DCH Codes Transmitted	Number of HARQ Processes	E-DCHTTI (ms)	Minimum Spreading Factor	Maximum E-DCH Transport Block Bits	Max Rate (Mbps)
1	1	4	10	4	7110	0.7296
2	2	8	2	4	2798	1.4592
	2	4	10	4	14484	
3	2	4	10	4	14484	1.4592
4	2	8	2	2	5772	2.9185
	2	4	10	2	20000	2.00
5	2	4	10	2	20000	2.00
6 (No DPDCH)	4	8	2	2 SF2 & 2 SF4	11484	5.76
	4	4	10		20000	2.00
7 (No DPDCH)	4	8	2	2 SF2 & 2 SF4	22996	?

	4	4	10		20000	?
NOTE: When 4 codes are transmitted in parallel, two codes shall be transmitted with SF2 and two with SF4. UE Categories 1 to 6 supports QPSK only. UE Category 7 supports QPSK and 16QAM. (TS25.306-7.3.0)						

5.2.2.5 HSPA, HSPA+ Test Configuration

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

SAR test exclusion for HSPA, HSPA+ is determined according to the following:

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

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

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

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

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

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

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

5.2.3 LTE Test Configuration

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

A) Spectrum Plots for RB Configurations

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

B) MPR

MPR is permanently implemented for this device by the manufacturer. The specific manufacturer

target MPR is indicated alongside the SAR results. MPR is enabled for this device, according to 3GPP TS36.101 Section 6.2.3 – 6.2.5 under Table 6.2.3-1.

C) A-MPR

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

D) Largest Channel Bandwidth Standalone SAR Test Requirements

1) QPSK with 1 RB allocation

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

2) QPSK with 50% RB allocation

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

3) QPSK with 100% RB allocation

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

4) Higher order modulations

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

E) Other Channel Bandwidth Standalone SAR Test Requirements

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

5.2.4 Additional Requirements for TDD LTE Specification

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

TDD LTE Band supports 3GPP TS 36.211 section 4.2 for Type 2 Frame Structure and Table: Uplink-downlink configurations for uplink-downlink configurations and Table: Configuration of special

subframe (lengths of DwPTS/GP/UpPTS) for Special subframe configurations.

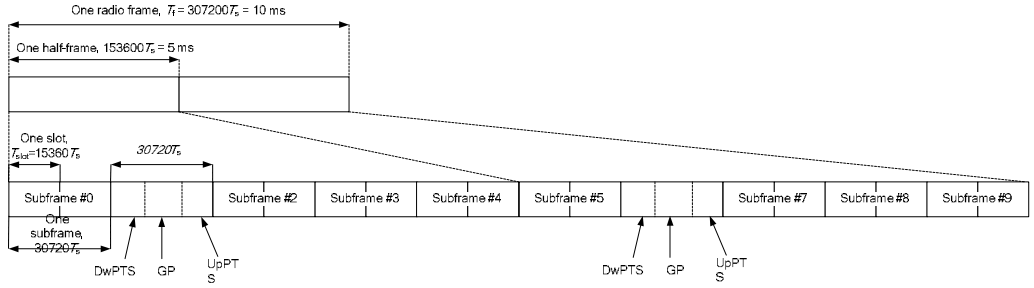


Figure 1: Frame structure type 2

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

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

Table 9: Uplink-Downlink Configurations

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

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

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

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

Uplink Component = UpPTS

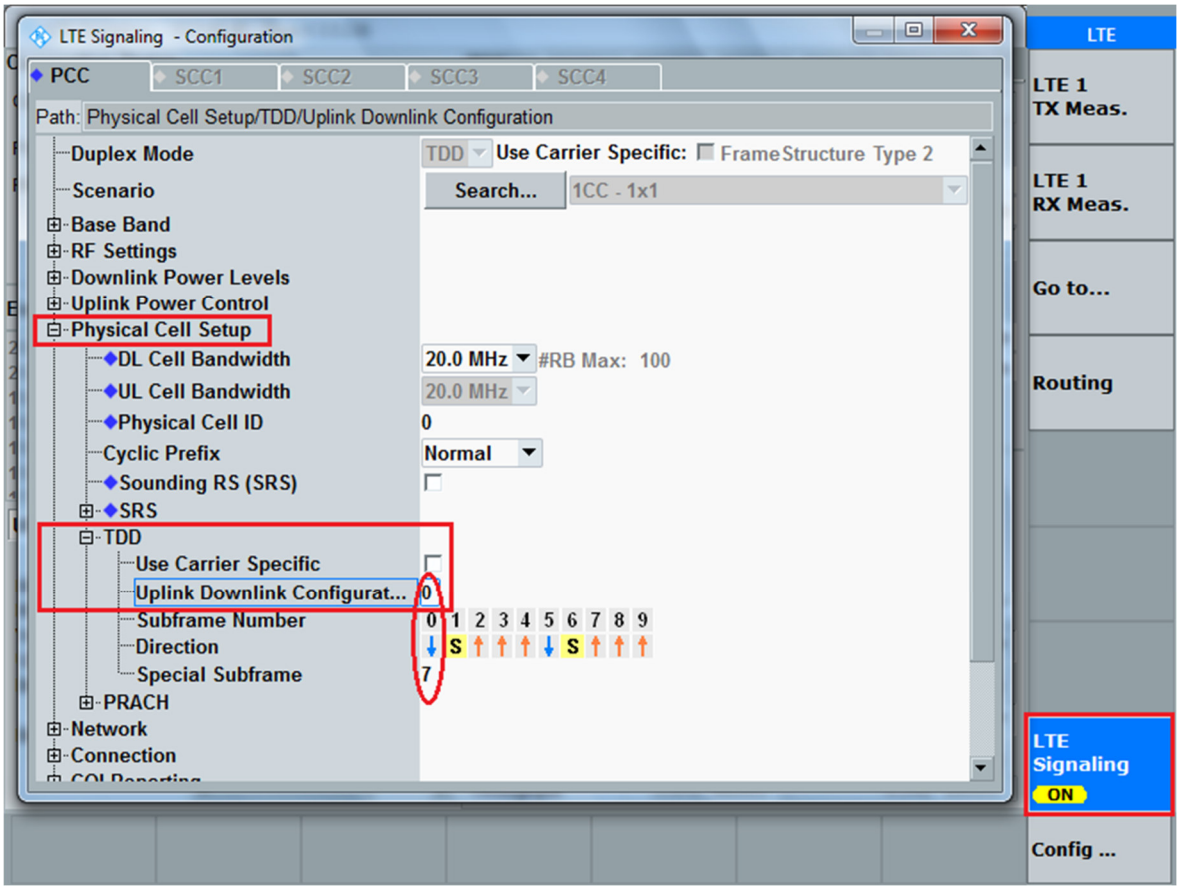
In conclusion, for the TDD LTE Band, Duty Cycle can be calculated with formula as below. All these sets are ok when we test, or we can set as below.

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

And we can get different Duty cycles under different configurations:

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

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



5.2.5 Wi-Fi Test Configuration

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

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

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

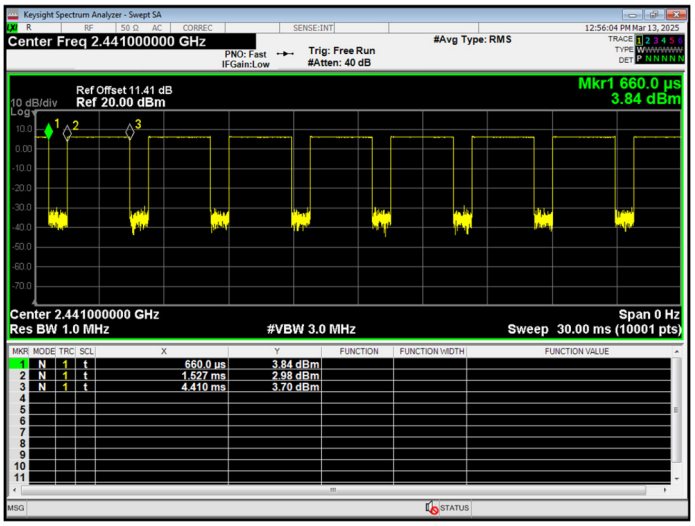
To determine the initial test position, Area Scans were performed to determine the position with the Maximum Value of SAR (measured). The position that produced the highest Maximum Value of SAR is considered the worst case position; thus used as the initial test position.

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

5.2.6 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 hoping off and data rate set for DH5.

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



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

5.2.7 Proximity Sensor Power Reduction Description

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 Antenna Main and Antenna WIFI 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.

Antenna Main				
Band	Test position	Sensor Trigger Distance range (DUT to Phantom)	Power reduction amount (dB)	Power level
GSM 850	Back side	0mm≤distance≤15mm	3	Sensor on
		15mm<distance	0	Sensor off
	Front side	0mm≤distance≤10mm	3	Sensor on
		10mm<distance	0	Sensor off

	Left edge	/	0	Sensor off
	Right edge	0mm≤distance≤14mm	3	Sensor on
		14mm<distance	0	Sensor off
	Top edge	0mm≤distance≤15mm	3	Sensor on
		15mm<distance	0	Sensor off
	Bottom Edge	/	0	Sensor off
GSM 1900	Back side	0mm≤distance≤15mm	5.5	Sensor on
		15mm<distance	0	Sensor off
	Front side	0mm≤distance≤10mm	5.5	Sensor on
		10mm<distance	0	Sensor off
	Left edge	/	0	Sensor off
	Right edge	0mm≤distance≤14mm	5.5	Sensor on
		14mm<distance	0	Sensor off
	Top edge	0mm≤distance≤15mm	5.5	Sensor on
		15mm<distance	0	Sensor off
	Bottom Edge	/	0	Sensor off
WCDMA B2	Back side	0mm≤distance≤15mm	10	Sensor on
		15mm<distance	0	Sensor off
	Front side	0mm≤distance≤10mm	10	Sensor on
		10mm<distance	0	Sensor off
	Left edge	/	0	Sensor off
	Right edge	0mm≤distance≤14mm	10	Sensor on
		14mm<distance	0	Sensor off
	Top edge	0mm≤distance≤15mm	8	Sensor on
		15mm<distance	0	Sensor off
	Bottom Edge	/	0	Sensor off
WCDMA B4	Back side	0mm≤distance≤15mm	10	Sensor on
		15mm<distance	0	Sensor off
	Front side	0mm≤distance≤10mm	10	Sensor on
		10mm<distance	0	Sensor off
	Left edge	/	0	Sensor off
	Right edge	0mm≤distance≤14mm	10	Sensor on
		14mm<distance	0	Sensor off
	Top edge	0mm≤distance≤15mm	10	Sensor on
		15mm<distance	0	Sensor off
	Bottom Edge	/	0	Sensor off
WCDMA B5	Back side	0mm≤distance≤15mm	3	Sensor on
		15mm<distance	0	Sensor off
	Front side	0mm≤distance≤10mm	3	Sensor on
		10mm<distance	0	Sensor off
	Left edge	/	0	Sensor off
	Right edge	0mm≤distance≤14mm	3	Sensor on
		14mm<distance	0	Sensor off

	Top edge	0mm≤distance≤15mm	3	Sensor on
		15mm<distance	0	Sensor off
	Bottom Edge	/	0	Sensor off
LTE B2	Back side	0mm≤distance≤15mm	10	Sensor on
		15mm<distance	0	Sensor off
	Front side	0mm≤distance≤10mm	10	Sensor on
		10mm<distance	0	Sensor off
	Left edge	/	0	Sensor off
	Right edge	0mm≤distance≤14mm	10	Sensor on
		14mm<distance	0	Sensor off
	Top edge	0mm≤distance≤15mm	10	Sensor on
		15mm<distance	0	Sensor off
	Bottom Edge	/	0	Sensor off
LTE B4	Back side	0mm≤distance≤15mm	10	Sensor on
		15mm<distance	0	Sensor off
	Front side	0mm≤distance≤10mm	10	Sensor on
		10mm<distance	0	Sensor off
	Left edge	/	0	Sensor off
	Right edge	0mm≤distance≤14mm	10	Sensor on
		14mm<distance	0	Sensor off
	Top edge	0mm≤distance≤15mm	10	Sensor on
		15mm<distance	0	Sensor off
	Bottom Edge	/	0	Sensor off
LTE B5	Back side	0mm≤distance≤15mm	3	Sensor on
		15mm<distance	0	Sensor off
	Front side	0mm≤distance≤10mm	3	Sensor on
		10mm<distance	0	Sensor off
	Left edge	/	0	Sensor off
	Right edge	0mm≤distance≤14mm	3	Sensor on
		14mm<distance	0	Sensor off
	Top edge	0mm≤distance≤15mm	3	Sensor on
		15mm<distance	0	Sensor off
	Bottom Edge	/	0	Sensor off
LTE B7	Back side	0mm≤distance≤15mm	12	Sensor on
		15mm<distance	0	Sensor off
	Front side	0mm≤distance≤10mm	12	Sensor on
		10mm<distance	0	Sensor off
	Left edge	/	0	Sensor off
	Right edge	0mm≤distance≤14mm	12	Sensor on
		14mm<distance	0	Sensor off
	Top edge	0mm≤distance≤15mm	12	Sensor on
		15mm<distance	0	Sensor off
	Bottom Edge	/	0	Sensor off

LTE B12	Back side	0mm≤distance≤15mm	3	Sensor on
		15mm<distance	0	Sensor off
	Front side	0mm≤distance≤10mm	3	Sensor on
		10mm<distance	0	Sensor off
	Left edge	/	0	Sensor off
	Right edge	0mm≤distance≤14mm	3	Sensor on
		14mm<distance	0	Sensor off
	Top edge	0mm≤distance≤15mm	3	Sensor on
		15mm<distance	0	Sensor off
	Bottom Edge	/	0	Sensor off
LTE B13	Back side	0mm≤distance≤15mm	4	Sensor on
		15mm<distance	0	Sensor off
	Front side	0mm≤distance≤10mm	4	Sensor on
		10mm<distance	0	Sensor off
	Left edge	/	0	Sensor off
	Right edge	0mm≤distance≤14mm	4	Sensor on
		14mm<distance	0	Sensor off
	Top edge	0mm≤distance≤15mm	4	Sensor on
		15mm<distance	0	Sensor off
	Bottom Edge	/	0	Sensor off
LTE B14	Back side	0mm≤distance≤15mm	4	Sensor on
		15mm<distance	0	Sensor off
	Front side	0mm≤distance≤10mm	4	Sensor on
		10mm<distance	0	Sensor off
	Left edge	/	0	Sensor off
	Right edge	0mm≤distance≤14mm	4	Sensor on
		14mm<distance	0	Sensor off
	Top edge	0mm≤distance≤15mm	4	Sensor on
		15mm<distance	0	Sensor off
	Bottom Edge	/	0	Sensor off
LTE B17	Back side	0mm≤distance≤15mm	3	Sensor on
		15mm<distance	0	Sensor off
	Front side	0mm≤distance≤10mm	3	Sensor on
		10mm<distance	0	Sensor off
	Left edge	/	0	Sensor off
	Right edge	0mm≤distance≤14mm	3	Sensor on
		14mm<distance	0	Sensor off
	Top edge	0mm≤distance≤15mm	3	Sensor on
		15mm<distance	0	Sensor off
	Bottom Edge	/	0	Sensor off
LTE B25	Back side	0mm≤distance≤15mm	10	Sensor on
		15mm<distance	0	Sensor off
	Front side	0mm≤distance≤10mm	10	Sensor on

		10mm<distance	0	Sensor off
	Left edge	/	0	Sensor off
	Right edge	0mm≤distance≤14mm	10	Sensor on
		14mm<distance	0	Sensor off
	Top edge	0mm≤distance≤15mm	10	Sensor on
		15mm<distance	0	Sensor off
	Bottom Edge	/	0	Sensor off
LTE B26	Back side	0mm≤distance≤15mm	3	Sensor on
		15mm<distance	0	Sensor off
	Front side	0mm≤distance≤10mm	3	Sensor on
		10mm<distance	0	Sensor off
	Left edge	/	0	Sensor off
	Right edge	0mm≤distance≤14mm	3	Sensor on
		14mm<distance	0	Sensor off
	Top edge	0mm≤distance≤15mm	3	Sensor on
		15mm<distance	0	Sensor off
	Bottom Edge	/	0	Sensor off
LTE B30	Back side	0mm≤distance≤15mm	10	Sensor on
		15mm<distance	0	Sensor off
	Front side	0mm≤distance≤10mm	10	Sensor on
		10mm<distance	0	Sensor off
	Left edge	/	0	Sensor off
	Right edge	0mm≤distance≤14mm	10	Sensor on
		14mm<distance	0	Sensor off
	Top edge	0mm≤distance≤15mm	10	Sensor on
		15mm<distance	0	Sensor off
	Bottom Edge	/	0	Sensor off
LTE B41	Back side	0mm≤distance≤15mm	10	Sensor on
		15mm<distance	0	Sensor off
	Front side	0mm≤distance≤10mm	10	Sensor on
		10mm<distance	0	Sensor off
	Left edge	/	0	Sensor off
	Right edge	0mm≤distance≤14mm	10	Sensor on
		14mm<distance	0	Sensor off
	Top edge	0mm≤distance≤15mm	10	Sensor on
		15mm<distance	0	Sensor off
	Bottom Edge	/	0	Sensor off
LTE B66	Back side	0mm≤distance≤15mm	10	Sensor on
		15mm<distance	0	Sensor off
	Front side	0mm≤distance≤10mm	10	Sensor on
		10mm<distance	0	Sensor off
	Left edge	/	0	Sensor off
	Right edge	0mm≤distance≤14mm	10	Sensor on

		14mm<distance	0	Sensor off
	Top edge	0mm≤distance≤15mm	10	Sensor on
		15mm<distance	0	Sensor off
	Bottom Edge	/	0	Sensor off
LTE B71	Back side	0mm≤distance≤15mm	3.5	Sensor on
		15mm<distance	0	Sensor off
	Front side	0mm≤distance≤10mm	3.5	Sensor on
		10mm<distance	0	Sensor off
	Left edge	/	0	Sensor off
	Right edge	0mm≤distance≤14mm	3.5	Sensor on
		14mm<distance	0	Sensor off
	Top edge	0mm≤distance≤15mm	3.5	Sensor on
		15mm<distance	0	Sensor off
	Bottom Edge	/	0	Sensor off
Antenna WIFI				
Band	Test position	Sensor Trigger Distance range (DUT to Phantom)	Power reduction amount (dB)	Power level
WIFI 2.4G	Back side	0mm≤distance≤15mm	6	Sensor on
		15mm<distance	0	Sensor off
	Front side	0mm≤distance≤10mm	6	Sensor on
		10mm<distance	0	Sensor off
	Left edge	/	0	Sensor off
	Right edge	0mm≤distance≤14mm	6	Sensor on
		14mm<distance	0	Sensor off
	Top edge	0mm≤distance≤15mm	6	Sensor on
		15mm<distance	0	Sensor off
	Bottom Edge	/	0	Sensor off
WIFI 5G	Back side	0mm≤distance≤15mm	7.5	Sensor on
		15mm<distance	0	Sensor off
	Front side	0mm≤distance≤10mm	7.5	Sensor on
		10mm<distance	0	Sensor off
	Left edge	/	0	Sensor off
	Right edge	0mm≤distance≤14mm	7.5	Sensor on
		14mm<distance	0	Sensor off
	Top edge	0mm≤distance≤15mm	7.5	Sensor on
		15mm<distance	0	Sensor off
	Bottom Edge	/	0	Sensor off

Note:

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

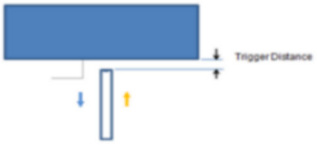
For the other sides or other frequency bands of the device, SAR is still tested at the sensor off.

Procedures for determining proximity sensor triggering distances

The device was tested by the test lab to determine the proximity sensor triggering distances for the back side, 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.

TheProximity sensor triggering distance measurement method are as below:

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



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

Table: Summary of Trigger Distances ：

Band	Trigger distance-Back Side		Trigger distance-Front Side		Trigger distance-Right Edge		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	Moving toward Phantom	Moving away from Phantom
GSM 850	15	15	10	10	14	14	15	15
GSM 1900	15	15	10	10	14	14	15	15
WCDMA B2	15	15	10	10	14	14	15	15
WCDMA B4	15	15	10	10	14	14	15	15
WCDMA B5	15	15	10	10	14	14	15	15
LTE B2	15	15	10	10	14	14	15	15
LTE B4	15	15	10	10	14	14	15	15
LTE B5	15	15	10	10	14	14	15	15
LTE B7	15	15	10	10	14	14	15	15
LTE B12	15	15	10	10	14	14	15	15
LTE B13	15	15	10	10	14	14	15	15
LTE B14	15	15	10	10	14	14	15	15
LTE B17	15	15	10	10	14	14	15	15
LTE B25	15	15	10	10	14	14	15	15
LTE B26	15	15	10	10	14	14	15	15
LTE B30	15	15	10	10	14	14	15	15
LTE B41	15	15	10	10	14	14	15	15
LTE B66	15	15	10	10	14	14	15	15
LTE B71	15	15	10	10	14	14	15	15
Wi-Fi 2.4G	14	14	14	14	14	14	14	14
Wi-Fi 5G	14	14	14	14	14	14	14	14

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 2/4/5/7/12/13/14/17/25/26 /30/41/66/71 with Antenna Main and Wi-Fi 2.4G/5G with Antenna Wi-Fi)

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

Table: Power Reduction Status (Moving toward phantom)

Position	Ant	Band	Power Reduction Status(dBm)																													
			35	34	33	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	13	11	9	7	6	5	4	3	2	1
Back Side	Main Antenna	GSM 850	32.58	32.58	32.58	32.58	32.58	32.58	32.58	32.58	32.58	32.58	32.58	32.58	32.58	32.58	32.58	32.58	32.58	32.58	32.58	32.58	29.51	29.51	29.51	29.51	29.51	29.51	29.51	29.51	29.51	29.51	29.51
Back Side	Main Antenna	GSM 1900	29.35	29.35	29.35	29.35	29.35	29.35	29.35	29.35	29.35	29.35	29.35	29.35	29.35	29.35	29.35	29.35	29.35	29.35	29.35	29.35	24.27	24.27	24.27	24.27	24.27	24.27	24.27	24.27	24.27	24.27	24.27
Back Side	Main Antenna	WCDMA B2	23.47	23.47	23.47	23.47	23.47	23.47	23.47	23.47	23.47	23.47	23.47	23.47	23.47	23.47	23.47	23.47	23.47	23.47	23.47	23.47	13.41	13.41	13.41	13.41	13.41	13.41	13.41	13.41	13.41	13.41	13.41
Back Side	Main Antenna	WCDMA B4	23.25	23.25	23.25	23.25	23.25	23.25	23.25	23.25	23.25	23.25	23.25	23.25	23.25	23.25	23.25	23.25	23.25	23.25	23.25	23.25	15.55	15.55	15.55	15.55	15.55	15.55	15.55	15.55	15.55	15.55	15.55
Back Side	Main Antenna	WCDMA B5	23.66	23.66	23.66	23.66	23.66	23.66	23.66	23.66	23.66	23.66	23.66	23.66	23.66	23.66	23.66	23.66	23.66	23.66	23.66	23.66	20.04	20.04	20.04	20.04	20.04	20.04	20.04	20.04	20.04	20.04	20.04
Back Side	Main Antenna	LTE B2	22.83	22.83	22.83	22.83	22.83	22.83	22.83	22.83	22.83	22.83	22.83	22.83	22.83	22.83	22.83	22.83	22.83	22.83	22.83	22.83	13.27	13.27	13.27	13.27	13.27	13.27	13.27	13.27	13.27	13.27	13.27
Back Side	Main Antenna	LTE B4	23.08	23.08	23.08	23.08	23.08	23.08	23.08	23.08	23.08	23.08	23.08	23.08	23.08	23.08	23.08	23.08	23.08	23.08	23.08	23.08	13.39	13.39	13.39	13.39	13.39	13.39	13.39	13.39	13.39	13.39	13.39
Back Side	Main Antenna	LTE B5	23.34	23.34	23.34	23.34	23.34	23.34	23.34	23.34	23.34	23.34	23.34	23.34	23.34	23.34	23.34	23.34	23.34	23.34	23.34	23.34	20.73	20.73	20.73	20.73	20.73	20.73	20.73	20.73	20.73	20.73	20.73
Back Side	Main Antenna	LTE B7	22.97	22.97	22.97	22.97	22.97	22.97	22.97	22.97	22.97	22.97	22.97	22.97	22.97	22.97	22.97	22.97	22.97	22.97	22.97	22.97	11.14	11.14	11.14	11.14	11.14	11.14	11.14	11.14	11.14	11.14	11.14
Back Side	Main Antenna	LTE B12	23.32	23.32	23.32	23.32	23.32	23.32	23.32	23.32	23.32	23.32	23.32	23.32	23.32	23.32	23.32	23.32	23.32	23.32	23.32	23.32	20.69	20.69	20.69	20.69	20.69	20.69	20.69	20.69	20.69	20.69	20.69
Back Side	Main Antenna	LTE B13	23.39	23.39	23.39	23.39	23.39	23.39	23.39	23.39	23.39	23.39	23.39	23.39	23.39	23.39	23.39	23.39	23.39	23.39	23.39	23.39	19.79	19.79	19.79	19.79	19.79	19.79	19.79	19.79	19.79	19.79	19.79
Back Side	Main Antenna	LTE B14	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	19.64	19.64	19.64	19.64	19.64	19.64	19.64	19.64	19.64	19.64	19.64
Back Side	Main Antenna	LTE B17	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	20.70	20.70	20.70	20.70	20.70	20.70	20.70	20.70	20.70	20.70	20.70
Back Side	Main Antenna	LTE B25	22.85	22.85	22.85	22.85	22.85	22.85	22.85	22.85	22.85	22.85	22.85	22.85	22.85	22.85	22.85	22.85	22.85	22.85	22.85	22.85	13.29	13.29	13.29	13.29	13.29	13.29	13.29	13.29	13.29	13.29	13.29
Back Side	Main Antenna	LTE B26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	20.39	20.39	20.39	20.39	20.39	20.39	20.39	20.39	20.39	20.39	20.39
Back Side	Main Antenna	LTE B30	22.64	22.64	22.64	22.64	22.64	22.64	22.64	22.64	22.64	22.64	22.64	22.64	22.64	22.64	22.64	22.64	22.64	22.64	22.64	22.64	12.95	12.95	12.95	12.95	12.95	12.95	12.95	12.95	12.95	12.95	12.95
Back Side	Main Antenna	LTE B41	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	13.30	13.30	13.30	13.30	13.30	13.30	13.30	13.30	13.30	13.30	13.30
Back Side	Main Antenna	LTE B66	23.15	23.15	23.15	23.15	23.15	23.15	23.15	23.15	23.15	23.15	23.15	23.15	23.15	23.15	23.15	23.15	23.15	23.15	23.15	23.15	13.52	13.52	13.52	13.52	13.52	13.52	13.52	13.52	13.52	13.52	13.52
Back Side	Main Antenna	LTE B71	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	19.83	19.83	19.83	19.83	19.83	19.83	19.83	19.83	19.83	19.83	19.83

Position	Ant	Band	Power Reduction Status(dBm)																													
			34	33	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	11	9	7	6	5	4	3	2	1
Back Side	WIFI Antenna	WIFI 2.4G	18.01	18.01	18.01	18.01	18.01	18.01	18.01	18.01	18.01	18.01	18.01	18.01	18.01	18.01	18.01	18.01	18.01	18.01	18.01	18.01	11.41	11.41	11.41	11.41	11.41	11.41	11.41	11.41	11.41	11.41	11.41
Back Side	WIFI Antenna	WIFI 5G	18.38	18.38	18.38	18.38	18.38	18.38	18.38	18.38	18.38	18.38	18.38	18.38	18.38	18.38	18.38	18.38	18.38	18.38	18.38	18.38	10.93	10.93	10.93	10.93	10.93	10.93	10.93	10.93	10.93	10.93	10.93

Position	Ant	Band	Power Reduction Status(dBm)																													
			35	34	33	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	13	11	9	7	6	5	4	3	2	1
Right Edge	Main Antenna	GSM 850	32.58	32.58	32.58	32.58	32.58	32.58	32.58	32.58	32.58	32.58	32.58	32.58	32.58	32.58	32.58	32.58	32.58	32.58	32.58	32.58	29.51	29.51	29.51	29.51	29.51	29.51	29.51	29.51	29.51	29.51	29.51
Right Edge	Main Antenna	GSM 1900	29.35	29.35	29.35	29.35	29.35	29.35	29.35	29.35	29.35	29.35	29.35	29.35	29.35	29.35	29.35	29.35	29.35	29.35	29.35	29.35	24.27	24.27	24.27	24.27	24.27	24.27	24.27	24.27	24.27	24.27	24.27
Right Edge	Main Antenna	WCDMA B2	23.47	23.47	23.47	23.47	23.47	23.47	23.47	23.47	23.47	23.47	23.47	23.47	23.47	23.47	23.47	23.47	23.47	23.47	23.47	23.47	13.41	13.41	13.41	13.41	13.41	13.41	13.41	13.41	13.41	13.41	13.41
Right Edge	Main Antenna	WCDMA B4	23.25	23.25	23.25	23.25	23.25	23.25	23.25	23.25	23.25	23.25	23.25	23.25	23.25	23.25	23.25	23.25	23.25	23.25	23.25	23.25	15.55	15.55	15.55	15.55	15.55	15.55	15.55	15.55	15.55	15.55	15.55
Right Edge	Main Antenna	WCDMA B5	23.66	23.66	23.66	23.66	23.66	23.66	23.66	23.66	23.66	23.66	23.66	23.66	23.66	23.66	23.66	23.66	23.66	23.66	23.66	23.66	20.04	20.04	20.04	20.04	20.04	20.04	20.04	20.04	20.04	20.04	20.04
Right Edge	Main Antenna	LTE B2	22.83	22.83	22.83	22.83	22.83	22.83	22.83	22.83	22.83	22.83	22.83	22.83	22.83	22.83	22.83	22.83	22.83	22.83	22.83	22.83	13.27	13.27	13.27	13.27	13.27	13.27	13.27	13.27	13.27	13.27	13.27
Right Edge	Main Antenna	LTE B4	23.08	23.08	23.08	23.08	23.08	23.08	23.08	23.08	23.08	23.08	23.08	23.08	23.08	23.08	23.08	23.08	23.08	23.08	23.08	23.08	13.39	13.39	13.39	13.39	13.39	13.39	13.39	13.39	13.39	13.39	13.39
Right Edge	Main Antenna	LTE B5	23.34	23.34	23.34	23.34	23.34	23.34	23.34	23.34	23.34	23.34	23.34	23.34	23.34	23.34	23.34	23.34	23.34	23.34	23.34	23.34	20.73	20.73	20.73	20.73	20.73	20.73	20.73	20.73	20.73	20.73	20.73
Right Edge	Main Antenna	LTE B7	22.97	22.97	22.97	22.97	22.97	22.97	22.97	22.97	22.97	22.97	22.97	22.97	22.97	22.97	22.97	22.97	22.97	22.97	22.97	22.97	11.14	11.14	11.14	11.14	11.14	11.14	11.14	11.14	11.14	11.14	11.14
Right Edge	Main Antenna	LTE B12	23.32	23.32	23.32	23.32	23.32	23.32	23.32	23.32	23.32	23.32	23.32	23.32	23.32	23.32	23.32	23.32	23.32	23.32	23.32	23.32	20.69	20.69	20.69	20.69	20.69	20.69	20.69	20.69	20.69	20.69	20.69
Right Edge	Main Antenna	LTE B13	23.39	23.39	23.39	23.39	23.39	23.39	23.39	23.39	23.39	23.39	23.39	23.39	23.39	23.39	23.39	23.39	23.39	23.39	23.39	23.39	19.79	19.79	19.79	19.79	19.79	19.79	19.79	19.79	19.79	19.79	19.79
Right Edge	Main Antenna	LTE B14	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	19.64	19.64	19.64	19.64	19.64	19.64	19.64	19.64	19.64	19.64	19.64
Right Edge	Main Antenna	LTE B17	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	20.70	20.70	20.70	20.70	20.70	20.70	20.70	20.70	20.70	20.70	20.70
Right Edge	Main Antenna	LTE B25	22.85	22.85	22.85	22.85	22.85	22.85	22.85	22.85	22.85	22.85	22.85	22.85	22.85	22.85	22.85	22.85	22.85	22.85	22.85	22.85	13.29	13.29	13.29	13.29	13.29	13.29	13.29	13.29	13.29	13.29	13.29
Right Edge	Main Antenna	LTE B26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	20.39	20.39	20.39	20.39	20.39	20.39	20.39	20.39	20.39	20.39	20.39
Right Edge	Main Antenna	LTE B30	22.64	22.64	22.64	22.64	22.64	22.64	22.64	22.64	22.64	22.64	22.64	22.64	22.64	22.64	22.64	22.64	22.64	22.64	22.64	22.64	12.95	12.95	12.95	12.95	12.95	12.95	12.95	12.95	12.95	12.95	12.95
Right Edge	Main Antenna	LTE B41	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	13.30	13.30	13.30	13.30	13.30	13.30	13.30	13.30	13.30	13.30	13.30
Right Edge	Main Antenna	LTE B66	23.15	23.15	23.15	23.15	23.15	23.15	23.15	23.15	23.15	23.15	23.15	23.15	23.15	23.15	23.15	23.15	23.15	23.15	23.15	23.15	13.52	13.52	13.52	13.52	13.52	13.52	13.52	13.52	13.52	13.52	13.52
Right Edge	Main Antenna	LTE B71	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	19.83	19.83	19.83	19.83	19.83	19.83	19.83	19.83	19.83	19.83	19.83

Position	Ant	Band	Power Reduction Status(dBm)																													
			34	33	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	11	9	7	6	5	4	3	2	1
Right Edge	WIFI Antenna	WIFI 2.4G	18.01	18.01	18.01	18.01	18.01	18.01	18.01	18.01	18.01	18.01	18.01	18.01	18.01	18.01	18.01	18.01	18.01	18.01	18.01	18.01	11.41	11.41	11.41	11.41	11.41	11.41	11.41	11.41	11.41	11.41	11.41
Right Edge	WIFI Antenna	WIFI 5G	18.38	18.38	18.38	18.38	18.38	18.38	18.38	18.38	18.38	18.38	18.38	18.38	18.38	18.38	18.38	18.38	18.38	18.38	18.38	18.38	10.93	10.93	10.93	10.93	10.93	10.93	10.93	10.93	10.93	10.93	10.93

Position	Ant	Band	Power Reduction Status(dBm)																													
			35	34	33	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	13	11	9	7	6	5	4	3	2	1
Top Edge	Main Antenna	GSM 850	32.58	32.58	32.58	32.58	32.58	32.58	32.58	32.58	32.58	32.58	32.58	32.58	32.58	32.58	32.58	32.58	32.58	32.58	32.58	32.58	29.51	29.51	29.51	29.51	29.51	29.51	29.51	29.51	29.51	29.51	29.51
Top Edge	Main Antenna	GSM 1900	29.35	29.35	29.35	29.35	29.35	29.35	29.35	29.35	29.35	29.35	29.35	29.35	29.35	29.35	29.35	29.35	29.35	29.35	29.35	29.35	24.27	24.27	24.27	24.27	24.27	24.27	24.27	24.27	24.27	24.27	24.27
Top Edge	Main Antenna	WCDMA B2	23.47	23.47	23.47	23.47	23.47	23.47	23.47	23.47	23.47	23.47	23.47	23.47	23.47	23.47	23.47	23.47	23.47	23.47	23.47	23.47	13.41	13.41	13.41	13.41	13.41	13.41	13.41	13.41	13.41	13.41	13.41
Top Edge	Main Antenna	WCDMA B4	23.25	23.25	23.25	23.25	23.25	23.25	23.25	23.25	23.25	23.25	23.25	23.25	23.25	23.25	23.25	23.25	23.25	23.25	23.25	23.25	15.55	15.55	15.55	15.55	15.55	15.55	15.55	15.55	15.55	15.55	15.55
Top Edge	Main Antenna	WCDMA B5	23.66	23.66	23.66	23.66	23.66	23.66	23.66	23.66	23.66	23.66	23.66	23.66	23.66	23.66	23.66	23.66	23.66	23.66	23.66	23.66	20.04	20.04	20.04	20.04	20.04	20.04	20.04	20.04	20.04	20.04	20.04
Top Edge	Main Antenna	LTE B2	22.83	22.83	22.83	22.83	22.83	22.83	22.83	22.83	22.83	22.83	22.83	22.83	22.83	22.83	22.83	22.83	22.83	22.83	22.83	22.83	13.27	13.27	13.27	13.27	13.27	13.27	13.27	13.27	13.27	13.27	13.27
Top Edge	Main Antenna	LTE B4	23.08	23.08	23.08	23.08	23.08	23.08	23.08	23.08	23.08	23.08	23.08	23.08	23.08	23.08	23.08	23.08	23.08	23.08	23.08	23.08	13.39	13.39	13.39	13.39	13.39	13.39	13.39	13.39	13.39	13.39	13.39
Top Edge	Main Antenna	LTE B5	23.34	23.34	23.34	23.34	23.34	23.34	23.34	23.34	23.34	23.34	23.34	23.34	23.34	23.34	23.34	23.34	23.34	23.34	23.34	23.34	20.73	20.73	20.73	20.73	20.73	20.73	20.73	20.73	20.73	20.73	20.73
Top Edge	Main Antenna	LTE B7	22.97	22.97	22.97	22.97	22.97	22.97	22.97	22.97	22.97	22.97	22.97	22.97	22.97	22.97	22.97	22.97	22.97	22.97	22.97	22.97	11.14	11.14	11.14	11.14	11.14	11.14	11.14	11.14	11.14	11.14	11.14
Top Edge	Main Antenna	LTE B12	23.32	23.32	23.32	23.32	23.32	23.32	23.32	23.32	23.32	23.32	23.32	23.32	23.32	23.32	23.32	23.32	23.32	23.32	23.32	23.32	20.69	20.69	20.69	20.69	20.69	20.69	20.69	20.69	20.69	20.69	20.69
Top Edge	Main Antenna	LTE B13	23.39	23.39	23.39	23.39	23.39	23.39	23.39	23.39	23.39	23.39	23.39	23.39	23.39	23.39	23.39	23.39	23.39	23.39	23.39	23.39	19.79	19.79	19.79	19.79	19.79	19.79	19.79	19.79	19.79	19.79	19.79
Top Edge	Main Antenna	LTE B14	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	19.64	19.64	19.64	19.64	19.64	19.64	19.64	19.64	19.64	19.64	19.64
Top Edge	Main Antenna	LTE B17	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	20.70	20.70	20.70	20.70	20.70	20.70	20.70	20.70	20.70	20.70	20.70
Top Edge	Main Antenna	LTE B25	22.85	22.85	22.85	22.85	22.85	22.85	22.85	22.85	22.85	22.85	22.85	22.85	22.85	22.85	22.85	22.85	22.85	22.85	22.85	22.85	13.29	13.29	13.29	13.29	13.29	13.29	13.29	13.29	13.29	13.29	13.29
Top Edge	Main Antenna	LTE B26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	20.39	20.39	20.39	20.39	20.39	20.39	20.39	20.39	20.39	20.39	20.39
Top Edge	Main Antenna	LTE B30	22.64	22.64	22.64	22.64	22.64	22.64	22.64	22.64	22.64	22.64	22.64	22.64	22.64	22.64	22.64	22.64	22.64	22.64	22.64	22.64	12.95	12.95	12.95	12.95	12.95	12.95	12.95	12.95	12.95	12.95	12.95
Top Edge	Main Antenna	LTE B41	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	13.30	13.30	13.30	13.30	13.30	13.30	13.30	13.30	13.30	13.30	13.30
Top Edge	Main Antenna	LTE B66	23.15	23.15	23.15	23.15	23.15	23.15	23.15	23.15	23.15	23.15	23.15	23.15	23.15	23.15	23.15	23.15	23.15	23.15	23.15	23.15	13.52	13.52	13.52	13.52	13.52	13.52	13.52	13.52	13.52	13.52	13.52
Top Edge	Main Antenna	LTE B71	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	19.83	19.83	19.83	19.83	19.83	19.83	19.83	19.83	19.83	19.83	19.83

Position	Ant	Band	Power Reduction Status(dBm)																													
			34	33	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	11	9	7	6	5	4	3	2	1
Top Edge	WIFI Antenna	WIFI 2.4G	18.01	18.01	18.01	18.01	18.01	18.01	18.01	18.01	18.01	18.01	18.01	18.01	18.01	18.01	18.01	18.01	18.01	18.01	18.01	18.01	11.41	11.41	11.41	11.41	11.41	11.41	11.41	11.41	11.41	11.41	11.41
Top Edge	WIFI Antenna	WIFI 5G	18.38	18.38	18.38	18.38	18.38	18.38	18.38	18.38	18.38	18.38	18.38	18.38	18.38	18.38	18.38	18.38	18.38	18.38	18.38	18.38	10.93	10.93	10.93	10.93	10.93	10.93	10.93	10.93	10.93	10.93	10.93

Table: Power Reduction Status (Moving away from phantom)

Position	Ant	Band	Power Reduction Status(dBm)																														
			1	2	3	4	5	6	8	10	12	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
Back Side	Main Antenna	GSM 850	29.51	29.51	29.51	29.51	29.51	29.51	29.51	29.51	29.51	29.51	29.51	32.58	32.56	32.58	32.58	32.56	32.58	32.58	32.58	32.58	32.58	32.58	32.58	32.58	32.58	32.58	32.58	32.58	32.58	32.58	32.58
Back Side	Main Antenna	GSM 1900	24.27	24.27	24.27	24.27	24.27	24.27	24.27	24.27	24.27	24.27	24.27	29.35	29.35	29.35	29.35	29.35	29.35	29.35	29.35	29.35	29.35	29.35	29.35	29.35	29.35	29.35	29.35	29.35	29.35	29.35	29.35
Back Side	Main Antenna	WCDMA B2	13.41	13.41	13.41	13.41	13.41	13.41	13.41	13.41	13.41	13.41	13.41	23.47	23.47	23.47	23.47	23.47	23.47	23.47	23.47	23.47	23.47	23.47	23.47	23.47	23.47	23.47	23.47	23.47	23.47	23.47	23.47
Back Side	Main Antenna	WCDMA B4	13.42	13.42	13.42	13.42	13.42	13.42	13.42	13.42	13.42	13.42	13.42	15.55	23.25	23.25	23.25	23.25	23.25	23.25	23.25	23.25	23.25	23.25	23.25	23.25	23.25	23.25	23.25	23.25	23.25	23.25	23.25
Back Side	Main Antenna	WCDMA B5	20.04	20.04	20.04	20.04	20.04	20.04	20.04	20.04	20.04	20.04	20.04	23.66	23.66	23.66	23.66	23.66	23.66	23.66	23.66	23.66	23.66	23.66	23.66	23.66	23.66	23.66	23.66	23.66	23.66	23.66	23.66
Back Side	Main Antenna	LTE B2	13.27	13.27	13.27	13.27	13.27	13.27	13.27	13.27	13.27	13.27	13.27	22.83	22.83	22.83	22.83	22.83	22.83	22.83	22.83	22.83	22.83	22.83	22.83	22.83	22.83	22.83	22.83	22.83	22.83	22.83	22.83
Back Side	Main Antenna	LTE B4	13.39	13.39	13.39	13.39	13.39	13.39	13.39	13.39	13.39	13.39	13.39	23.08	23.08	23.08	23.08	23.08	23.08	23.08	23.08	23.08	23.08	23.08	23.08	23.08	23.08	23.08	23.08	23.08	23.08	23.08	23.08
Back Side	Main Antenna	LTE B5	20.73	20.73	20.73	20.73	20.73	20.73	20.73	20.73	20.73	20.73	20.73	23.34	23.34	23.34	23.34	23.34	23.34	23.34	23.34	23.34	23.34	23.34	23.34	23.34	23.34	23.34	23.34	23.34	23.34	23.34	23.34
Back Side	Main Antenna	LTE B7	11.14	11.14	11.14	11.14	11.14	11.14	11.14	11.14	11.14	11.14	11.14	22.97	22.97	22.97	22.97	22.97	22.97	22.97	22.97	22.97	22.97	22.97	22.97	22.97	22.97	22.97	22.97	22.97	22.97	22.97	22.97
Back Side	Main Antenna	LTE B12	20.69	20.69	20.69	20.69	20.69	20.69	20.69	20.69	20.69	20.69	20.69	23.32	23.32	23.32	23.32	23.32	23.32	23.32	23.32	23.32	23.32	23.32	23.32	23.32	23.32	23.32	23.32	23.32	23.32	23.32	23.32
Back Side	Main Antenna	LTE B13	19.79	19.79	19.79	19.79	19.79	19.79	19.79	19.79	19.79	19.79	19.79	23.39	23.39	23.39	23.39	23.39	23.39	23.39	23.39	23.39	23.39	23.39	23.39	23.39	23.39	23.39	23.39	23.39	23.39	23.39	23.39
Back Side	Main Antenna	LTE B14	19.64	19.64	19.64	19.64	19.64	19.64	19.64	19.64	19.64	19.64	19.64	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27
Back Side	Main Antenna	LTE B17	20.70	20.70	20.70	20.70	20.70	20.70	20.70	20.70	20.70	20.70	20.70	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26
Back Side	Main Antenna	LTE B25	13.29	13.29	13.29	13.29	13.29	13.29	13.29	13.29	13.29	13.29	13.29	22.85	22.85	22.85	22.85	22.85	22.85	22.85	22.85	22.85	22.85	22.85	22.85	22.85	22.85	22.85	22.85	22.85	22.85	22.85	22.85
Back Side	Main Antenna	LTE B26	20.39	20.39	20.39	20.39	20.39	20.39	20.39	20.39	20.39	20.39	20.39	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26
Back Side	Main Antenna	LTE B30	12.95	12.95	12.95	12.95	12.95	12.95	12.95	12.95	12.95	12.95	12.95	22.64	22.64	22.64	22.64	22.64	22.64	22.64	22.64	22.64	22.64	22.64	22.64	22.64	22.64	22.64	22.64	22.64	22.64	22.64	22.64
Back Side	Main Antenna	LTE B41	13.30	13.30	13.30	13.30	13.30	13.30	13.30	13.30	13.30	13.30	13.30	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27
Back Side	Main Antenna	LTE B66	13.52	13.52	13.52	13.52	13.52	13.52	13.52	13.52	13.52	13.52	13.52	23.15	23.15	23.15	23.15	23.15	23.15	23.15	23.15	23.15	23.15	23.15	23.15	23.15	23.15	23.15	23.15	23.15	23.15	23.15	23.15
Back Side	Main Antenna	LTE B71	19.83	19.83	19.83	19.83	19.83	19.83	19.83	19.83	19.83	19.83	19.83	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37

Position	Ant	Band	Power Reduction Status(dBm)																														
			1	2	3	4	5	6	7	9	11	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34
Back Side	WIFI Antenna	WIFI 2.4G	11.41	11.41	11.41	11.41	11.41	11.41	11.41	11.41	11.41	11.41	11.41	18.01	18.01	18.01	18.01	18.01	18.01	18.01	18.01	18.01	18.01	18.01	18.01	18.01	18.01	18.01	18.01	18.01	18.01	18.01	18.01
Back Side	WIFI Antenna	WIFI 5G	10.93	10.93	10.93	10.93	10.93	10.93	10.93	10.93	10.93	10.93	10.93	18.38	18.38	18.38	18.38	18.38	18.38	18.38	18.38	18.38	18.38	18.38	18.38	18.38	18.38	18.38	18.38	18.38	18.38	18.38	18.38

Position	Ant	Band	Power Reduction Status(dBm)																														
			1	2	3	4	5	6	8	10	12	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
Right Edge	Main Antenna	GSM 850	29.51	29.51	29.51	29.51	29.51	29.51	29.51	29.51	29.51	29.51	29.51	32.58	32.58	32.58	32.58	32.58	32.58	32.58	32.58	32.58	32.58	32.58	32.58	32.58	32.58	32.58	32.58	32.58	32.58	32.58	32.58
Right Edge	Main Antenna	GSM 1900	24.27	24.27	24.27	24.27	24.27	24.27	24.27	24.27	24.27	24.27	24.27	29.35	29.35	29.35	29.35	29.35	29.35	29.35	29.35	29.35	29.35	29.35	29.35	29.35	29.35	29.35	29.35	29.35	29.35	29.35	29.35
Right Edge	Main Antenna	WCDMA B2	13.41	13.41	13.41	13.41	13.41	13.41	13.41	13.41	13.41	13.41	13.41	23.47	23.47	23.47	23.47	23.47	23.47	23.47	23.47	23.47	23.47	23.47	23.47	23.47	23.47	23.47	23.47	23.47	23.47	23.47	23.47
Right Edge	Main Antenna	WCDMA B4	13.42	13.42	13.42	13.42	13.42	13.42	13.42	13.42	13.42	13.42	13.42	15.55	23.25	23.25	23.25	23.25	23.25	23.25	23.25	23.25	23.25	23.25	23.25	23.25	23.25	23.25	23.25	23.25	23.25	23.25	23.25
Right Edge	Main Antenna	WCDMA B5	20.04	20.04	20.04	20.04	20.04	20.04	20.04	20.04	20.04	20.04	20.04	23.66	23.66	23.66	23.66	23.66	23.66	23.66	23.66	23.66	23.66	23.66	23.66	23.66	23.66	23.66	23.66	23.66	23.66	23.66	23.66
Right Edge	Main Antenna	LTE B2	13.27	13.27	13.27	13.27	13.27	13.27	13.27	13.27	13.27	13.27	13.27	22.83	22.83	22.83	22.83	22.83	22.83	22.83	22.83	22.83	22.83	22.83	22.83	22.83	22.83	22.83	22.83	22.83	22.83	22.83	22.83
Right Edge	Main Antenna	LTE B4	13.39	13.39	13.39	13.39	13.39	13.39	13.39	13.39	13.39	13.39	13.39	23.08	23.08	23.08	23.08	23.08	23.08	23.08	23.08	23.08	23.08	23.08	23.08	23.08	23.08	23.08	23.08	23.08	23.08	23.08	23.08
Right Edge	Main Antenna	LTE B5	20.73	20.73	20.73	20.73	20.73	20.73	20.73	20.73	20.73	20.73	20.73	23.34	23.34	23.34	23.34	23.34	23.34	23.34	23.34	23.34	23.34	23.34	23.34	23.34	23.34	23.34	23.34	23.34	23.34	23.34	23.34
Right Edge	Main Antenna	LTE B7	11.14	11.14	11.14	11.14	11.14	11.14	11.14	11.14	11.14	11.14	11.14	22.97	22.97	22.97	22.97	22.97	22.97	22.97	22.97	22.97	22.97	22.97	22.97	22.97	22.97	22.97	22.97	22.97	22.97	22.97	22.97
Right Edge	Main Antenna	LTE B12	20.69	20.69	20.69	20.69	20.69	20.69	20.69	20.69	20.69	20.69	20.69	23.32	23.32	23.32	23.32	23.32	23.32	23.32	23.32	23.32	23.32	23.32	23.32	23.32	23.32	23.32	23.32	23.32	23.32	23.32	23.32
Right Edge	Main Antenna	LTE B13	19.79	19.79	19.79	19.79	19.79	19.79	19.79	19.79	19.79	19.79	19.79	23.39	23.39	23.39	23.39	23.39	23.39	23.39	23.39	23.39	23.39	23.39	23.39	23.39	23.39	23.39	23.39	23.39	23.39	23.39	23.39
Right Edge	Main Antenna	LTE B14	19.64	19.64	19.64	19.64	19.64	19.64	19.64	19.64	19.64	19.64	19.64	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27
Right Edge	Main Antenna	LTE B17	20.70	20.70	20.70	20.70	20.70	20.70	20.70	20.70	20.70	20.70	20.70	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26
Right Edge	Main Antenna	LTE B25	13.29	13.29	13.29	13.29	13.29	13.29	13.29	13.29	13.29	13.29	13.29	22.85	22.85	22.85	22.85	22.85	22.85	22.85	22.85	22.85	22.85	22.85	22.85	22.85	22.85	22.85	22.85	22.85	22.85	22.85	22.85
Right Edge	Main Antenna	LTE B26	20.39	20.39	20.39	20.39	20.39	20.39	20.39	20.39	20.39	20.39	20.39	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26
Right Edge	Main Antenna	LTE B30	12.95	12.95	12.95	12.95	12.95	12.95	12.95	12.95	12.95	12.95	12.95	22.64	22.64	22.64	22.64	22.64	22.64	22.64	22.64	22.64	22.64	22.64	22.64	22.64	22.64	22.64	22.64	22.64	22.64	22.64	22.64
Right Edge	Main Antenna	LTE B41	13.30	13.30	13.30	13.30	13.30	13.30	13.30	13.30	13.30	13.30	13.30	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27
Right Edge	Main Antenna	LTE B66	13.52	13.52	13.52	13.52	13.52	13.52	13.52	13.52	13.52	13.52	13.52	23.15	23.15	23.15	23.15	23.15	23.15	23.15	23.15	23.15	23.15	23.15	23.15	23.15	23.15	23.15	23.15	23.15	23.15	23.15	23.15
Right Edge	Main Antenna	LTE B71	19.83	19.83	19.83	19.83	19.83	19.83	19.83	19.83	19.83	19.83	19.83	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37

Position	Ant	Band	Power Reduction Status(dBm)																														
			1	2	3	4	5	6	7	9	11	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34
Right Edge	WIFI Antenna	WIFI 2.4G	11.41	11.41	11.41	11.41	11.41	11.41	11.41	11.41	11.41	11.41	11.41	18.01	18.01	18.01	18.01	18.01	18.01	18.01	18.01	18.01	18.01	18.01	18.01	18.01	18.01	18.01	18.01	18.01	18.01	18.01	18.01
Right Edge	WIFI Antenna	WIFI 5G	10.93	10.93	10.93	10.93	10.93	10.93	10.93	10.93	10.93	10.93	10.93	18.38	18.38	18.38	18.38	18.38	18.38	18.38	18.38	18.38	18.38	18.38	18.38	18.38	18.38	18.38	18.38	18.38	18.38	18.38	18.38

Position	Ant	Band	Power Reduction Status(dBm)																														
			1	2	3	4	5	6	8	10	12	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
Top Edge	Main Antenna	GSM 850	29.51	29.51	29.51	29.51	29.51	29.51	29.51	29.51	29.51	29.51	29.51	32.58	32.58	32.58	32.58	32.58	32.58	32.58	32.58	32.58	32.58	32.58	32.58	32.58	32.58	32.58	32.58	32.58	32.58	32.58	32.58
Top Edge	Main Antenna	GSM 1900	24.27	24.27	24.27	24.27	24.27	24.27	24.27	24.27	24.27	24.27	24.27	29.35	29.35	29.35	29.35	29.35	29.35	29.35	29.35	29.35	29.35	29.35	29.35	29.35	29.35	29.35	29.35	29.35	29.35	29.35	29.35
Top Edge	Main Antenna	WCDMA B2	13.41	13.41	13.41	13.41	13.41	13.41	13.41	13.41	13.41	13.41	13.41	23.47	23.47	23.47	23.47	23.47	23.47	23.47	23.47	23.47	23.47	23.47	23.47	23.47	23.47	23.47	23.47	23.47	23.47	23.47	23.47
Top Edge	Main Antenna	WCDMA B4	13.42	13.42	13.42	13.42	13.42	13.42	13.42	13.42	13.42	13.42	13.42	15.55	23.25	23.25	23.25	23.25	23.25	23.25	23.25	23.25	23.25	23.25	23.25	23.25	23.25	23.25	23.25	23.25	23.25	23.25	23.25
Top Edge	Main Antenna	WCDMA B5	20.04	20.04	20.04	20.04	20.04	20.04	20.04	20.04	20.04	20.04	20.04	23.66	23.66	23.66	23.66	23.66	23.66	23.66	23.66	23.66	23.66	23.66	23.66	23.66	23.66	23.66	23.66	23.66	23.66	23.66	23.66
Top Edge	Main Antenna	LTE B2	13.27	13.27	13.27	13.27	13.27	13.27	13.27	13.27	13.27	13.27	13.27	22.83	22.83	22.83	22.83	22.83	22.83	22.83	22.83	22.83	22.83	22.83	22.83	22.83	22.83	22.83	22.83	22.83	22.83	22.83	22.83
Top Edge	Main Antenna	LTE B4	13.39	13.39	13.39	13.39	13.39	13.39	13.39	13.39	13.39	13.39	13.39	23.08	23.08	23.08	23.08	23.08	23.08	23.08	23.08	23.08	23.08	23.08	23.08	23.08	23.08	23.08	23.08	23.08	23.08	23.08	23.08
Top Edge	Main Antenna	LTE B5	20.73	20.73	20.73	20.73	20.73	20.73	20.73	20.73	20.73	20.73	20.73	23.34	23.34	23.34	23.34	23.34	23.34	23.34	23.34	23.34	23.34	23.34	23.34	23.34	23.34	23.34	23.34	23.34	23.34	23.34	23.34
Top Edge	Main Antenna	LTE B7	11.14	11.14	11.14	11.14	11.14	11.14	11.14	11.14	11.14	11.14	11.14	22.97	22.97	22.97	22.97	22.97	22.97	22.97	22.97	22.97	22.97	22.97	22.97	22.97	22.97	22.97	22.97	22.97	22.97	22.97	22.97
Top Edge	Main Antenna	LTE B12	20.69	20.69	20.69	20.69	20.69	20.69	20.69	20.69	20.69	20.69	20.69	23.32	23.32	23.32	23.32	23.32	23.32	23.32	23.32	23.32	23.32	23.32	23.32	23.32	23.32	23.32	23.32	23.32	23.32	23.32	23.32
Top Edge	Main Antenna	LTE B13	19.79	19.79	19.79	19.79	19.79	19.79	19.79	19.79	19.79	19.79	19.79	23.39	23.39	23.39	23.39	23.39	23.39	23.39	23.39	23.39	23.39	23.39	23.39	23.39	23.39	23.39	23.39	23.39	23.39	23.39	23.39
Top Edge	Main Antenna	LTE B14	19.64	19.64	19.64	19.64	19.64	19.64	19.64	19.64	19.64	19.64	19.64	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27
Top Edge	Main Antenna	LTE B17	20.70	20.70	20.70	20.70	20.70	20.70	20.70	20.70	20.70	20.70	20.70	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26
Top Edge	Main Antenna	LTE B25	13.29	13.29	13.29	13.29	13.29	13.29	13.29	13.29	13.29	13.29	13.29	22.85	22.85	22.85	22.85	22.85	22.85	22.85	22.85	22.85	22.85	22.85	22.85	22.85	22.85	22.85	22.85	22.85	22.85	22.85	22.85
Top Edge	Main Antenna	LTE B26	20.39	20.39	20.39	20.39	20.39	20.39	20.39	20.39	20.39	20.39	20.39	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26
Top Edge	Main Antenna	LTE B30	12.95	12.95	12.95	12.95	12.95	12.95	12.95	12.95	12.95	12.95	12.95	22.64	22.64	22.64	22.64	22.64	22.64	22.64	22.64	22.64	22.64	22.64	22.64	22.64	22.64	22.64	22.64	22.64	22.64	22.64	22.64
Top Edge	Main Antenna	LTE B41	13.30	13.30	13.30	13.30	13.30	13.30	13.30	13.30	13.30	13.30	13.30	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27	23.27
Top Edge	Main Antenna	LTE B66	13.52	13.52	13.52	13.52	13.52	13.52	13.52	13.52	13.52	13.52	13.52	23.15	23.15	23.15	23.15	23.15	23.15	23.15	23.15	23.15	23.15	23.15	23.15	23.15	23.15	23.15	23.15	23.15	23.15	23.15	23.15
Top Edge	Main Antenna	LTE B71	19.83	19.83	19.83	19.83	19.83	19.83	19.83	19.83	19.83	19.83	19.83	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37

Position	Ant	Band	Power Reduction Status(dBm)																														
			1	2	3	4	5	6	7	9	11	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34
Top Edge	WIFI Antenna	WIFI 2.4G	11.41	11.41	11.41	11.41	11.41	11.41	11.41	11.41	11.41	11.41	11.41	18.01	18.01	18.01	18.01	18.01	18.01	18.01	18.01	18.01	18.01	18.01	18.01	18.01	18.01	18.01	18.01	18.01	18.01	18.01	18.01
Top Edge	WIFI Antenna	WIFI 5G	10.93	10.93	10.93	10.93	10.93	10.93	10.93	10.93	10.93	10.93	10.93	18.38	18.38	18.38	18.38	18.38	18.38	18.38	18.38	18.38	18.38	18.38	18.38	18.38	18.38	18.38	18.38	18.38	18.38	18.38	18.38

Procedures for determining device tilt angle influences to proximity sensor triggering

The DUT was positioned directly below the flat phantom at the minimum measured trigger distance with Top/Right Edge parallel to the base of the flat phantom for each band.

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

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

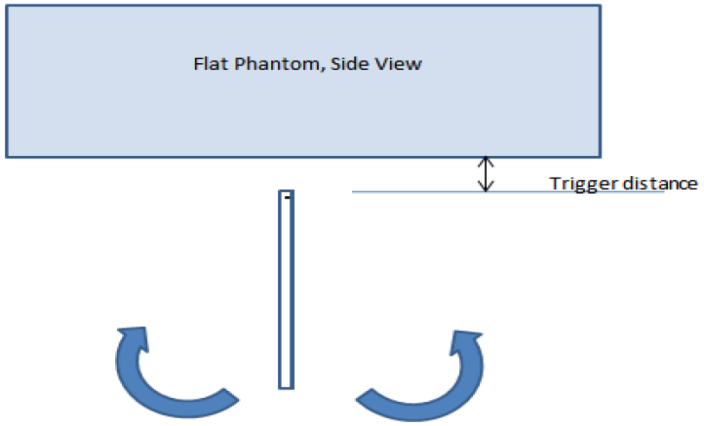


Table: Summary of Tablet Tilt Angle Influence to Proximity Sensor Triggering (Top/Right edge)

Band(MHz)	Position	Minimum trigger distance at which power reduction was maintained over ±45°	Power Reduction Status										
			-45°	-35°	-25°	-15°	-5°	0°	5°	15°	25°	35°	45°
GSM 850	Top edge	14mm	on	on	on	on	on	on	on	on	on	on	on
GSM 1900	Top edge	14mm	on	on	on	on	on	on	on	on	on	on	on
WCDMA B2	Top edge	14mm	on	on	on	on	on	on	on	on	on	on	on
WCDMA B4	Top edge	14mm	on	on	on	on	on	on	on	on	on	on	on
WCDMA B5	Top edge	14mm	on	on	on	on	on	on	on	on	on	on	on
LTE B2	Top edge	14mm	on	on	on	on	on	on	on	on	on	on	on
LTE B4	Top edge	14mm	on	on	on	on	on	on	on	on	on	on	on
LTE B5	Top edge	14mm	on	on	on	on	on	on	on	on	on	on	on
LTE B7	Top edge	14mm	on	on	on	on	on	on	on	on	on	on	on
LTE B12	Top edge	14mm	on	on	on	on	on	on	on	on	on	on	on
LTE B13	Top edge	14mm	on	on	on	on	on	on	on	on	on	on	on
LTE B14	Top edge	14mm	on	on	on	on	on	on	on	on	on	on	on
LTE B17	Top edge	14mm	on	on	on	on	on	on	on	on	on	on	on
LTE B25	Top edge	14mm	on	on	on	on	on	on	on	on	on	on	on
LTE B26	Top edge	14mm	on	on	on	on	on	on	on	on	on	on	on
LTE B30	Top edge	14mm	on	on	on	on	on	on	on	on	on	on	on
LTE B41	Top edge	14mm	on	on	on	on	on	on	on	on	on	on	on
LTE B66	Top edge	14mm	on	on	on	on	on	on	on	on	on	on	on
LTE B71	Top edge	14mm	on	on	on	on	on	on	on	on	on	on	on
WiFi 2.4G	Right edge	14mm	on	on	on	on	on	on	on	on	on	on	on
WiFi 5G	Right edge	14mm	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.

5.2.8 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:

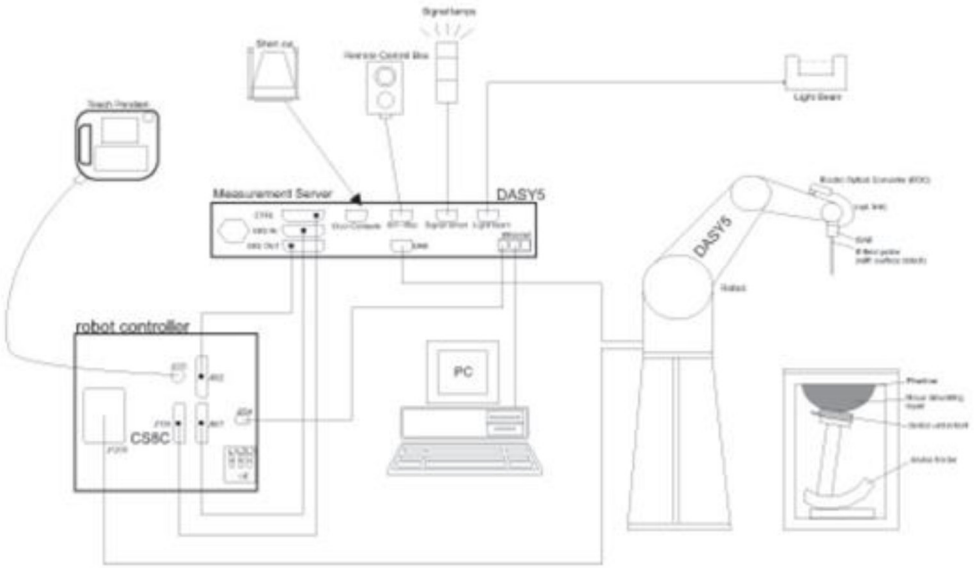
Main Antenna			Power Reduction Level Amount (dB)																				
Power Reduction Scenario		Sensor	GSM850	GSM1900	WCDMA B2	WCDMA B4	WCDMA B5	LTE B2	LTE B4	LTE B5	LTE B7	LTE B12	LTE B13	LTE B14	LTE B17	LTE B25	LTE B26	LTE B30	LTE B41	LTE B66	LTE B71
Full power		Full power	33.50	30.50	24.00	24.00	24.00	24.00	24.00	24.00	24.00	24.00	24.00	24.00	24.00	24.00	24.00	24.00	24.00	24.00	24.00
Standalone		Sensor on	3.00	5.50	10.00	10.00	3.00	10.00	10.00	3.00	12.00	3.00	4.00	4.00	3.00	10.00	3.00	10.00	10.00	10.00	3.50
		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	0.00	0.00	0.00	0.00
Simultaneous	Wi-Fi on	Sensor on	3.00	5.50	10.00	10.00	3.00	10.00	10.00	3.00	12.00	3.00	4.00	4.00	3.00	10.00	3.00	10.00	10.00	10.00	3.50
		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	0.00	0.00	0.00	0.00

Wi-Fi Antenna			Power Reduction Level Amount (dB)									
Power Reduction Scenario		Sensor	WiFi 2.4G 11b	WiFi 2.4G 11g	WiFi 2.4G 11n HT20	WiFi 2.4G 11n HT40	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		Full power	16.50	18.50	18.50	18.50	18.50	18.50	17.00	17.00	17.00	17.00
Standalone		Sensor on	4.00	6.00	6.00	6.00	7.00	7.50	6.00	6.00	6.00	6.00
		Sensor off	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Simultaneous	WWAN on	Sensor on	4.00	6.00	6.00	6.00	7.00	7.50	6.00	6.00	6.00	6.00
		Sensor off	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

6 SAR Measurements System Configuration

6.1 SAR Measurement Set-up

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



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

6.2 DASY5 E-field Probe System

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

EX3DV4 Probe Specification

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

E-field Probe Calibration

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

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

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

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

Where: Δt = Exposure time (30 seconds),

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

ΔT = Temperature increase due to RF exposure.

Or

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

Where: σ = Simulated tissue conductivity,

ρ = Tissue density (kg/m^3).

6.3 SAR Measurement Procedure

Power Reference Measurement

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

Area Scan

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

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

Zoom Scan

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

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

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

Volume Scan Procedures

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

Power Drift Monitoring

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

7 Main Test Equipment

Name of Equipment	Manufacturer	Type/Model	Serial Number	Software Version	Last Cal.	Cal. Due Date
Network Analyzer	Agilent	E5071B	MY42404014	/	2024-05-07	2025-05-06
Dielectric Probe Kit	SPEAG	DAK-3.5	1332	/	2024-07-15	2025-07-14
Power Meter	Agilent	E4417A	GB41291714	/	2024-05-07	2025-05-06
Power Sensor	Agilent	N8481H	MY50350004	/	2024-05-07	2025-05-06
Power Sensor	Agilent	E9327A	US40441622	/	2024-05-07	2025-05-06
Signal Generator	KEYSIGHT	N5182B-X07	MY51350303	/	2024-12-02	2025-12-01
Dual Directional Coupler	UCL	UCL-DDC056G-S	20010600118	/	/	/
Amplifier	R&S	SCU18F	101022	/	2024-05-08	2025-05-07
Wireless Communication Tester	Anritsu	MT8820C	6201342015	/	2024-12-03	2025-12-02
Wireless Communication Tester	Agilent	E5515C	MY48360988	/	2024-12-03	2025-12-02
Wireless communication tester	Starpoint	SP9500	20440	/	2024-05-07	2025-05-06
Wireless Communication Tester	Anritsu	MT8000A	6261844783	/	2024-05-07	2025-05-06
Wireless Communication Tester	R&S	CMW 500	146734	/	2024-05-07	2025-05-06
E-field Probe	SPEAG	EX3DV4	7689	/	2024-06-04	2025-06-03
DAE	SPEAG	DAE4	1317	/	2024-09-10	2025-09-09
Validation Kit 750MHz	SPEAG	D750V3	1045	/	2023-09-12	2026-09-11
Validation Kit 835MHz	SPEAG	D835V2	4d020	/	2023-09-15	2026-09-14
Validation Kit 1750MHz	SPEAG	D1750V2	1033	/	2023-03-23	2026-03-22
Validation Kit 1900MHz	SPEAG	D1900V2	5d060	/	2023-09-12	2026-09-11
Validation Kit 2300MHz	SPEAG	D2300V2	1131	/	2022-09-09	2025-09-08
Validation Kit 2450MHz	SPEAG	D2450V2	786	/	2023-09-12	2026-09-11
Validation Kit 2600MHz	SPEAG	D2600V2	1025	/	2024-05-08	2027-05-07
Validation Kit 5GHz	SPEAG	D5GHzV2	1203	/	2022-12-09	2025-12-08
Software for Tissue	SPEAG	DAK 3.0.4.1	/	3.0.4.1	/	/
Temperature Probe	Auden	DTM3000	3905	/	2024-12-03	2025-12-02
Twin ELI Phantom	SPEAG	ELI v4.0	1179	/	/	/
Hygrothermograph	Anymetr	HTC - 1	TA2024A031	/	2024-05-06	2025-05-05
Test System	SPEAG	TX90 XLspeag	F08/5AH5A1/A/01	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℃ to 25℃ and within ± 2℃ of the temperature when the tissue parameters are characterized. The dielectric parameters must be measured before the tissue-equivalent medium is used in a series of SAR measurements. The parameters should be re-measured after each 24 hours of use; or earlier if the dielectric parameters can become out of tolerance.

Target values

Frequency (MHz)	ε_r	σ(s/m)
750	42.0	0.90
835	41.5	0.90
1750	40.1	1.37
1900	40.0	1.40
2300	39.5	1.67
2450	39.2	1.80
2600	39.0	1.96
5250	35.9	4.71
5600	35.5	5.07
5750	35.4	5.22

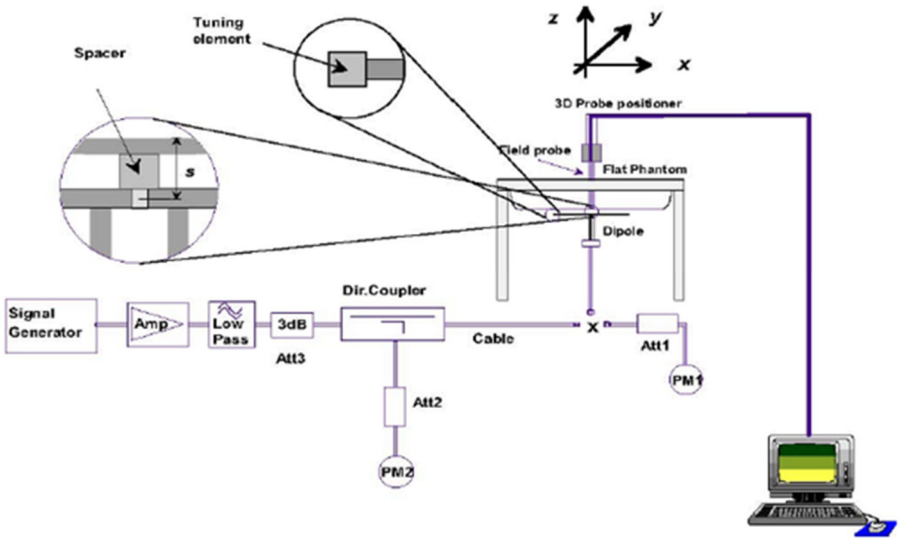
Measurements results

Frequency (MHz)	Test Date	Temp ℃	Measured Dielectric Parameters		Target Dielectric Parameters		Limit (Within ±5%)	
			ε_r	σ(s/m)	ε_r	σ(s/m)	Dev ε_r(%)	Dev σ(%)
750	3/11/2025	21.5	42.3	0.88	42.0	0.90	0.71	-2.22
	3/12/2025	21.5	42.0	0.87	42.0	0.90	0.00	-3.33
835	3/3/2025	21.5	41.4	0.88	41.5	0.90	-0.24	-2.22
	3/10/2025	21.5	41.3	0.87	41.5	0.90	-0.48	-3.33
1750	3/4/2025	21.5	40.2	1.34	40.1	1.37	0.25	-2.19
1900	3/6/2025	21.5	40.1	1.41	40.0	1.40	0.25	0.71
	3/17/2025	21.5	40.2	1.43	40.0	1.40	0.50	2.14
2300	3/6/2025	21.5	40.0	1.65	39.5	1.67	1.27	-1.20
2450	3/14/2025	21.5	38.6	1.81	39.2	1.80	-1.53	0.56
2600	3/14/2025	21.5	38.2	2.01	39.0	1.96	-2.05	2.55
	3/15/2025	21.5	38.4	1.94	39.0	1.96	-1.54	-1.02
5250	3/13/2025	21.5	35.5	4.80	35.9	4.71	-1.11	1.91
5600	3/13/2025	21.5	34.2	5.21	35.5	5.07	-3.66	2.76
5750	3/13/2025	21.5	34.9	5.21	35.4	5.22	-1.41	-0.19
Note: The depth of tissue-equivalent liquid in a phantom must be ≥ 15.0 cm.								

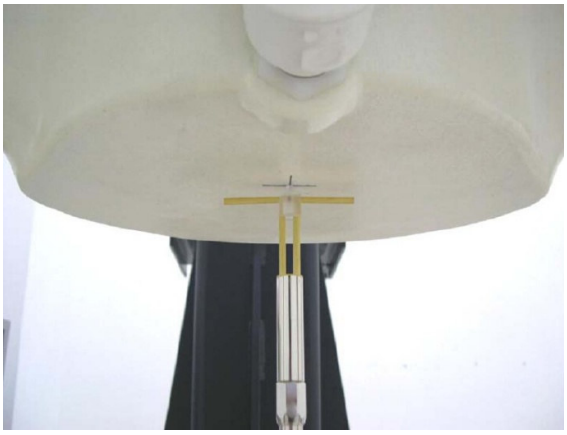
8.2 System Check

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

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



Picture 1 System Check setup



Picture 2 Setup Photo

Justification for Extended SAR Dipole Calibrations

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

Dipole		Date of Measurement	Return Loss (dB)	Δ %	Impedance (Ω)			
					Real	ΔΩ	Imaginary	ΔΩ
Dipole D750V3 SN: 1045	Head Liquid	2023-09-12	30.4	/	51.9	/	-2.47	/
		2024-09-11	30.12	-0.9	52.3	0.4	-2.46	0.01
Dipole D835V2 SN: 4d020	Head Liquid	2023-09-15	28.3	/	50.6	/	-3.80	/
		2024-09-14	28.9	2.0	51.4	0.8	-3.66	0.14
Dipole D1750V2 SN: 1033	Head Liquid	2023-03-23	36.2	/	51.2	/	-0.98	/
		2024-03-22	35.4	-2.2	51.6	0.4	-1.28	-0.3
Dipole D1900V2 SN: 5d060	Head Liquid	2023-09-12	24.0	/	50.5	/	6.32	/
		2024-09-11	24.1	0.6	50.9	0.4	6.83	0.51
Dipole D2300V2 SN: 1131	Head Liquid	2022-09-09	26.1	/	45.8	/	2.3	/
		2023-09-08	26.4	1.1	45.5	-0.3	2.2	-0.1
		2024-09-07	26.9	3.1	46.1	0.3	2.70	0.40
Dipole D2450V2 SN: 786	Head Liquid	2023-09-12	28.2	/	52.2	/	3.34	/
		2024-09-11	28.6	1.4	52.8	0.6	3.43	0.09
Dipole D5GHzV2 (5250 MHz) SN: 1203	Head Liquid	2022-12-09	29.0	/	48.5	/	-3.20	/
		2023-12-08	28.4	-2.1	48.4	-0.1	-3.4	-0.2
		2024-12-07	28.6	0.6	49.3	0.9	-3.37	0.03
Dipole D5GHzV2 (5600 MHz) SN: 1203	Head Liquid	2022-12-09	30.4	/	51.7	/	2.60	/
		2023-12-08	30.5	0.3	51.5	-0.2	2.4	-0.2
		2024-12-07	30.8	1.1	51.9	0.4	2.85	0.45
Dipole D5GHzV2 (5750 MHz) SN: 1203	Head Liquid	2022-12-09	25.3	/	53.6	/	4.30	/
		2023-12-08	25.7	1.6	53.1	-0.5	4.7	0.4
		2024-12-07	26.1	3.1	54.5	0.9	4.62	0.32

System Check Results

Frequency (MHz)	Test Date	Temp ℃	250mW Measured SAR_{1g} (W/kg)	1W Normalized SAR_{1g} (W/kg)	1W Target SAR_{1g} (W/kg)	Δ % (Limit ±10%)	Plot No.
750	3/11/2025	21.5	2.13	8.52	8.47	0.59	1
	3/12/2025	21.5	2.10	8.40	8.47	-0.83	2
835	3/3/2025	21.5	2.44	9.76	9.75	0.10	3
	3/10/2025	21.5	2.46	9.84	9.75	0.92	4
1750	3/4/2025	21.5	8.95	35.80	36.80	-2.72	5
1900	3/6/2025	21.5	9.88	39.52	40.40	-2.18	6
	3/17/2025	21.5	9.85	39.40	40.40	-2.48	7
2300	3/6/2025	21.5	12.36	49.44	50.10	-1.32	8
2450	3/14/2025	21.5	13.70	54.80	52.60	4.18	9
2600	3/14/2025	21.5	13.90	55.60	56.10	-0.89	10
	3/15/2025	21.5	13.88	55.52	56.10	-1.03	11
Frequency (MHz)	**Test Date**	**Temp ℃**	**100mW Measured SAR_{1g} (W/kg)**	**1W Normalized SAR_{1g} (W/kg)**	**1W Target SAR_{1g} (W/kg)**	**Δ % (Limit ±10%)**	**Plot No.**
5250	3/13/2025	21.5	7.87	78.70	77.70	1.29	12
5600	3/13/2025	21.5	7.67	76.70	80.30	-4.48	13
5750	3/13/2025	21.5	7.66	76.60	76.80	-0.26	14
Note: Target Values used derive from the calibration certificate data storage and evaluation.							

9 Normal and Maximum Output Power

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

9.1 GSM Mode

GSM 850 Pmax&Sensor off		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	32.53	32.58	32.61	9.03	24.47	23.50	23.55	23.58
GPRS/ EGPRS (GMSK)	1 Tx Slot	33.50	32.57	32.61	32.69	9.03	24.47	23.54	23.58	23.66
	2 Tx Slots	32.00	31.77	31.80	31.80	6.02	25.98	25.75	25.78	25.78
	3 Tx Slots	30.00	29.95	29.98	29.88	4.26	25.74	25.69	25.72	25.62
	4 Tx Slots	29.00	28.79	28.83	28.88	3.01	**25.99**	25.78	25.82	25.87
EGPRS (8PSK)	1 Tx Slot	27.00	25.64	25.66	25.94	9.03	17.97	16.61	16.63	16.91
	2 Tx Slots	26.00	24.46	24.49	24.76	6.02	19.98	18.44	18.47	18.74
	3 Tx Slots	24.00	22.28	22.45	22.48	4.26	19.74	18.02	18.19	18.22
	4 Tx Slots	23.00	21.13	21.11	21.07	3.01	19.99	18.12	18.10	18.06
GSM 850 Sensor on		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	30.50	29.47	29.51	29.55	9.03	**21.47**	20.44	20.48	20.52
GPRS/ EGPRS (GMSK)	1 Tx Slot	30.50	29.45	29.49	29.52	9.03	**21.47**	20.42	20.46	20.49
	2 Tx Slots	26.50	25.41	25.47	25.53	6.02	20.48	19.39	19.45	19.51
	3 Tx Slots	23.50	22.66	22.72	22.79	4.26	19.24	18.40	18.46	18.53
	4 Tx Slots	21.50	20.43	20.45	20.55	3.01	18.49	17.42	17.44	17.54
EGPRS (8PSK)	1 Tx Slot	23.50	22.39	22.54	22.36	9.03	14.47	13.36	13.51	13.33
	2 Tx Slots	19.50	18.08	18.05	18.55	6.02	13.48	12.06	12.03	12.53
	3 Tx Slots	16.50	14.76	15.08	15.41	4.26	12.24	10.50	10.82	11.15
	4 Tx Slots	13.50	12.13	12.43	12.47	3.01	10.49	9.12	9.42	9.46
GSM 1900 Pmax&Sensor off		Burst-Averaged Output Power(dBm)				Division Factors	Frame-Averaged Output Power(dBm)			
		Tune-up	Channel/Frequency(MHz)				Tune-up	Channel/Frequency(MHz)		
		MAX	512 /1850.2	661 /1880	810 /1909.8		MAX	512 /1850.2	661 /1880	810 /1909.8
GSM	CS	30.50	29.56	29.35	29.55	9.03	21.47	20.53	20.32	20.52
GPRS/ EGPRS	1 Tx Slot	30.50	29.56	29.39	29.53	9.03	21.47	20.53	20.36	20.50
	2 Tx Slots	29.00	28.87	28.72	28.95	6.02	22.98	22.85	22.70	22.93

(GMSK)	3 Tx Slots	27.50	27.00	26.93	27.26	4.26	**23.24**	22.74	22.67	23.00
	4 Tx Slots	26.00	25.93	25.87	25.90	3.01	22.99	22.92	22.86	22.89
EGPRS (8PSK)	1 Tx Slot	27.00	25.71	25.73	25.67	9.03	17.97	16.68	16.70	16.64
	2 Tx Slots	26.00	24.63	24.59	24.86	6.02	19.98	18.61	18.57	18.84
	3 Tx Slots	24.00	22.56	22.67	22.99	4.26	19.74	18.30	18.41	18.73
	4 Tx Slots	23.00	21.57	21.61	21.51	3.01	19.99	18.56	18.60	18.50
GSM 1900 Sensor on		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	25.00	24.38	24.27	24.71	9.03	15.97	15.35	15.24	15.68
GPRS/ EGPRS (GMSK)	1 Tx Slot	25.00	24.37	24.23	24.65	9.03	15.97	15.34	15.20	15.62
	2 Tx Slots	22.00	20.35	20.25	20.82	6.02	**15.98**	14.33	14.23	14.80
	3 Tx Slots	19.00	17.73	17.63	18.28	4.26	14.74	13.47	13.37	14.02
	4 Tx Slots	18.00	16.46	16.36	17.08	3.01	14.99	13.45	13.35	14.07
EGPRS (8PSK)	1 Tx Slot	21.50	20.56	20.67	21.00	9.03	12.47	11.53	11.64	11.97
	2 Tx Slots	17.50	16.22	16.76	16.88	6.02	11.48	10.20	10.74	10.86
	3 Tx Slots	15.00	13.31	13.45	13.93	4.26	10.74	9.05	9.19	9.67
	4 Tx Slots	13.50	11.63	12.17	12.22	3.01	10.49	8.62	9.16	9.21

Notes: The worst-case configuration and mode for SAR testing is determined to be as follows: Standalone: GSM 850 GMSK (GPRS) mode with 4 time slots / 1 time slot for Max power, GSM 1900 GMSK (GPRS) mode with 3 time slots / 2 time slots for Max power, based on the output power measurements above.

9.2 WCDMA Mode

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

WCDMA Pmax&Sensor off		Band II(dBm)				Band IV(dBm)				Band V(dBm)			
Tx Channel		9262	9400	9538	Tune-up Limit	1312	1413	1513	Tune-up Limit	4132	4183	4233	Tune-up Limit
Frequency(MHz)		1852.4	1880	1907.6		1712.4	1732.6	1752.6		826.4	836.6	846.6	
RMC	12.2kbps	23.41	23.47	23.44	24.00	23.27	23.25	23.27	24.00	23.73	23.66	23.68	24.00
AMR	12.2kbps	23.55	23.53	23.42	24.00	23.29	23.41	23.27	24.00	23.75	23.54	23.62	24.00
HSDPA	Sub 1	21.91	21.91	22.00	22.50	21.61	21.65	21.75	22.50	22.07	22.02	22.24	22.50
	Sub 2	21.85	21.89	21.78	22.50	21.83	21.77	21.83	22.50	22.21	22.18	22.14	22.50
	Sub 3	21.33	21.39	21.42	22.00	21.15	21.23	21.25	22.00	21.67	21.58	21.78	22.00
	Sub 4	21.31	21.49	21.52	22.00	21.29	21.09	21.25	22.00	21.59	21.74	21.62	22.00
HSUPA	Sub 1	20.01	20.13	20.04	20.50	19.71	19.65	19.71	20.50	20.13	20.08	20.34	20.50
	Sub 2	19.97	19.99	19.82	20.50	19.67	19.73	19.61	20.50	20.13	20.08	20.24	20.50
	Sub 3	20.87	21.05	20.98	21.50	20.73	20.67	20.63	21.50	21.33	21.16	21.16	21.50
	Sub 4	19.25	19.39	19.38	20.00	19.21	19.21	19.27	20.00	19.65	19.80	19.60	20.00
	Sub 5	20.87	20.95	20.94	21.50	20.65	20.89	20.87	21.50	21.29	21.18	21.18	21.50
HSPA+	16QAM	21.81	21.81	22.04	23.00	21.65	21.75	21.91	23.00	22.11	22.26	22.02	23.00
WCDMA Sensor on		Band II(dBm)				Band IV(dBm)				Band V(dBm)			
Tx Channel		9262	9400	9538	Tune-up Limit	1312	1413	1513	Tune-up Limit	4132	4183	4233	Tune-up Limit
Frequency(MHz)		1852.4	1880	1907.6		1712.4	1732.6	1752.6		826.4	836.6	846.6	
RMC	12.2kbps	13.26	13.41	13.55	14.00	13.51	13.42	13.49	14.00	20.07	20.04	20.11	21.00
AMR	12.2kbps	13.68	13.65	13.58	14.00	13.51	13.53	13.44	14.00	19.97	20.10	20.19	21.00
HSDPA	Sub 1	12.44	12.44	12.27	13.00	12.49	12.51	12.53	13.00	19.19	18.92	19.09	20.00
	Sub 2	12.62	12.72	12.33	13.00	12.43	12.63	12.51	13.00	18.97	18.88	18.97	20.00
	Sub 3	11.62	11.46	11.39	12.00	11.49	11.71	11.53	12.00	18.01	18.06	18.19	19.00
	Sub 4	11.52	11.62	11.35	12.00	11.45	11.67	11.49	12.00	18.19	18.12	17.95	19.00
HSUPA	Sub 1	10.60	10.60	10.37	11.00	10.37	10.71	10.41	11.00	16.99	17.04	17.19	18.00
	Sub 2	10.04	10.26	9.89	10.50	9.85	10.17	10.05	10.50	16.57	16.38	16.57	17.50
	Sub 3	11.06	11.18	10.95	11.50	11.07	10.97	10.81	11.50	17.49	17.46	17.51	18.50
	Sub 4	10.02	10.20	9.87	10.50	9.95	10.09	9.89	10.50	16.67	16.50	16.49	17.50
	Sub 5	11.00	11.12	10.91	11.50	11.03	10.89	10.87	11.50	17.47	17.44	17.71	18.50
HSPA+	16QAM	12.04	12.18	11.87	12.50	11.87	12.21	11.81	12.50	18.63	18.68	18.59	19.50
Note: Per KDB 941225 D01, SAR for each exposure is measured using a 12.2 kbps RMC with TPC bits configured to all "1's".													

9.3 LTE Mode

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

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

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

LTE B2							
Pmax&Sensor off				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			
				18607/1850.7	18900/1880	19193/1909.3	
1.4MHz	QPSK	1	0	22.74	22.70	22.66	24.00
		1	2	22.85	22.84	22.78	24.00
		1	5	22.75	22.68	22.71	24.00
		3	0	22.82	22.79	22.79	24.00
		3	2	22.91	22.85	22.80	24.00
		3	3	22.85	22.80	22.79	24.00
		6	0	21.87	21.80	21.81	23.00
	16QAM	1	0	22.13	22.04	22.00	23.00
		1	2	22.23	22.16	22.13	23.00
		1	5	22.09	22.02	22.00	23.00
		3	0	21.82	21.85	21.81	23.00
		3	2	21.90	21.88	21.80	23.00
		3	3	21.87	21.77	21.78	23.00
		6	0	21.02	20.98	20.94	22.00
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up
				18615/1851.5	18900/1880	19185/1908.5	
3MHz	QPSK	1	0	22.75	22.73	22.71	24.00
		1	7	22.72	22.72	22.71	24.00
		1	14	22.71	22.70	22.74	24.00
		8	0	21.77	21.75	21.78	23.00
		8	4	21.80	21.78	21.79	23.00
		8	7	21.79	21.72	21.76	23.00
		15	0	21.76	21.74	21.76	23.00
	16QAM	1	0	22.08	21.98	21.97	23.00
		1	7	22.07	21.99	21.98	23.00
		1	14	22.06	21.99	21.96	23.00

		8	0	20.97	20.94	20.93	22.00
		8	4	20.94	20.91	20.93	22.00
		8	7	20.93	20.89	20.88	22.00
		15	0	20.87	20.87	20.85	22.00
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up
				18625/1852.5	18900/1880	19175/1907.5	
5MHz	QPSK	1	0	22.69	22.63	22.59	24.00
		1	13	22.77	22.74	22.75	24.00
		1	24	22.60	22.59	22.63	24.00
		12	0	21.74	21.73	21.74	23.00
		12	6	21.83	21.83	21.84	23.00
		12	13	21.79	21.74	21.78	23.00
		25	0	21.80	21.78	21.74	23.00
	16QAM	1	0	22.00	21.91	21.88	23.00
		1	13	22.12	22.04	21.99	23.00
		1	24	21.92	21.89	21.86	23.00
		12	0	20.81	20.86	20.79	22.00
		12	6	20.90	20.85	20.90	22.00
		12	13	20.87	20.82	20.82	22.00
		25	0	20.90	20.86	20.84	22.00
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up
				18650/1855	18900/1880	19150/1905	
10MHz	QPSK	1	0	22.77	22.73	22.70	24.00
		1	25	22.80	22.81	22.80	24.00
		1	49	22.69	22.66	22.72	24.00
		25	0	21.77	21.80	21.83	23.00
		25	13	21.84	21.83	21.78	23.00
		25	25	21.82	21.82	21.84	23.00
		50	0	21.83	21.78	21.83	23.00
	16QAM	1	0	22.07	22.02	22.06	23.00
		1	25	22.11	22.14	22.11	23.00
		1	49	21.96	22.02	22.02	23.00
		25	0	20.83	20.83	20.92	22.00
		25	13	20.90	20.87	20.90	22.00
		25	25	20.93	20.89	20.95	22.00
		50	0	20.92	20.86	20.89	22.00
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up
				18675/1857.5	18900/1880	19125/1902.5	
15MHz	QPSK	1	0	22.77	22.75	22.67	24.00
		1	38	22.80	22.79	22.79	24.00
		1	74	22.66	22.63	22.70	24.00
		36	0	21.78	21.81	21.85	23.00
		36	18	21.82	21.83	21.81	23.00

		36	39	21.79	21.82	21.85	23.00
		75	0	21.77	21.82	21.81	23.00
	16QAM	1	0	22.10	22.02	21.98	23.00
		1	38	22.07	22.10	22.04	23.00
		1	74	21.90	21.97	22.01	23.00
		36	0	20.85	20.84	20.89	22.00
		36	18	20.87	20.88	20.84	22.00
		36	39	20.83	20.87	20.90	22.00
		75	0	20.84	20.87	20.87	22.00
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up
				18700/1860	18900/1880	19100/1900	
20MHz	QPSK	1	0	22.67	22.64	22.59	24.00
		1	50	**22.82**	**22.81**	**22.83**	24.00
		1	99	22.56	22.57	22.65	24.00
		50	0	21.70	21.80	**21.87**	23.00
		50	25	**21.87**	**21.81**	21.81	23.00
		50	50	21.76	21.79	21.80	23.00
		100	0	21.74	21.79	**21.87**	23.00
	16QAM	1	0	22.07	21.99	21.89	23.00
		1	50	22.13	22.19	22.20	23.00
		1	99	21.94	21.94	21.96	23.00
		50	0	20.79	20.87	20.93	22.00
		50	25	20.93	20.87	20.89	22.00
		50	50	20.81	20.89	20.87	22.00
		100	0	20.79	20.86	20.92	22.00
LTE B2							
Sensor on				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	13.10	12.83	12.76	14.00
		1	2	13.24	13.19	13.33	14.00
		1	5	13.09	13.09	13.14	14.00
		3	0	13.18	13.17	13.29	14.00
		3	2	13.26	13.25	13.29	14.00
		3	3	13.25	13.21	13.27	14.00
		6	0	13.18	13.22	13.29	14.00
	16QAM	1	0	13.47	13.43	13.45	14.00
		1	2	13.65	13.53	13.60	14.00
		1	5	13.45	13.42	13.46	14.00
		3	0	13.29	13.26	13.29	14.00
		3	2	13.30	13.14	13.36	14.00
		3	3	13.28	13.28	13.31	14.00
		6	0	13.30	13.33	13.34	14.00

Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up
				18615/1851.5	18900/1880	19185/1908.5	
3MHz	QPSK	1	0	12.80	12.87	12.82	14.00
		1	7	13.11	13.08	13.22	14.00
		1	14	13.13	13.09	13.22	14.00
		8	0	13.15	13.16	13.27	14.00
		8	4	13.19	13.15	13.25	14.00
		8	7	13.12	13.15	13.22	14.00
		15	0	13.15	13.16	13.22	14.00
	16QAM	1	0	13.46	13.49	13.43	14.00
		1	7	13.46	13.42	13.50	14.00
		1	14	13.46	13.42	13.51	14.00
		8	0	13.24	13.22	13.31	14.00
		8	4	13.27	13.27	13.35	14.00
		8	7	13.24	13.23	13.32	14.00
		15	0	13.16	13.20	13.26	14.00
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up
				18625/1852.5	18900/1880	19175/1907.5	
5MHz	QPSK	1	0	12.36	12.65	12.70	14.00
		1	13	13.13	13.13	13.22	14.00
		1	24	12.97	12.99	13.09	14.00
		12	0	13.15	13.18	13.22	14.00
		12	6	13.18	13.19	13.29	14.00
		12	13	13.18	13.17	13.21	14.00
		25	0	13.16	13.16	13.23	14.00
	16QAM	1	0	13.33	13.35	13.36	14.00
		1	13	13.46	13.46	13.52	14.00
		1	24	13.34	13.27	13.41	14.00
		12	0	13.15	13.21	13.26	14.00
		12	6	13.23	13.20	13.29	14.00
		12	13	13.19	13.17	13.26	14.00
		25	0	13.17	13.17	13.28	14.00
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up
				18650/1855	18900/1880	19150/1905	
10MHz	QPSK	1	0	12.70	12.79	12.93	14.00
		1	25	13.22	13.26	13.26	14.00
		1	49	13.14	13.15	13.21	14.00
		25	0	13.19	13.20	13.32	14.00
		25	13	13.21	13.24	13.28	14.00
		25	25	13.24	13.23	13.25	14.00
		50	0	13.20	13.19	13.28	14.00
	16QAM	1	0	13.56	13.46	13.56	14.00
		1	25	13.52	13.58	13.60	14.00

		1	49	13.49	13.48	13.59	14.00
		25	0	13.18	13.25	13.30	14.00
		25	13	13.22	13.24	13.27	14.00
		25	25	13.26	13.23	13.29	14.00
		50	0	13.20	13.24	13.30	14.00
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up
				18675/1857.5	18900/1880	19125/1902.5	
15MHz	QPSK	1	0	12.44	12.74	12.94	14.00
		1	38	13.14	13.15	13.21	14.00
		1	74	13.05	13.06	13.19	14.00
		36	0	13.20	13.22	13.26	14.00
		36	18	13.20	13.24	13.28	14.00
		36	39	13.23	13.21	13.25	14.00
		75	0	13.17	13.24	13.24	14.00
	16QAM	1	0	13.49	13.48	13.47	14.00
		1	38	13.52	13.53	13.49	14.00
		1	74	13.40	13.46	13.51	14.00
		36	0	13.14	13.22	13.25	14.00
		36	18	13.21	13.22	13.26	14.00
		36	39	13.20	13.16	13.24	14.00
		75	0	13.20	13.24	13.27	14.00
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up
				18700/1860	18900/1880	19100/1900	
20MHz	QPSK	1	0	12.70	12.98	13.00	14.00
		1	50	**13.26**	**13.26**	**13.27**	14.00
		1	99	13.02	13.08	13.14	14.00
		50	0	12.95	**13.01**	**13.02**	14.00
		50	25	13.00	12.98	12.99	14.00
		50	50	**13.01**	12.95	13.01	14.00
		100	0	12.99	12.98	**13.03**	14.00
	16QAM	1	0	13.54	13.41	13.40	14.00
		1	50	13.58	13.50	13.61	14.00
		1	99	13.37	13.34	13.46	14.00
		50	0	13.14	13.27	13.25	14.00
		50	25	13.24	13.20	13.30	14.00
		50	50	13.23	13.21	13.19	14.00
		100	0	13.18	13.24	13.21	14.00

LTE B4							
Pmax&Sensor off				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			
				19957/1710.7	20175/1732.5	20393/1754.3	
1.4MHz	QPSK	1	0	22.87	22.89	22.89	24.00
		1	2	23.02	22.97	22.96	24.00
		1	5	22.87	22.82	22.88	24.00
		3	0	22.96	22.94	22.97	24.00
		3	2	22.94	22.91	22.97	24.00
		3	3	22.97	22.92	22.97	24.00
		6	0	22.00	21.96	21.96	23.00
	16QAM	1	0	22.25	22.20	22.24	23.00
		1	2	22.46	22.36	22.40	23.00
		1	5	22.28	22.23	22.29	23.00
		3	0	22.07	22.02	22.03	23.00
		3	2	22.11	22.02	22.05	23.00
		3	3	22.05	22.03	22.01	23.00
		6	0	21.15	21.07	21.10	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	23.00	22.96	22.92	24.00
		1	7	22.99	22.91	22.95	24.00
		1	14	23.00	22.91	22.94	24.00
		8	0	22.02	21.97	21.98	23.00
		8	4	22.01	22.00	21.98	23.00
		8	7	22.02	21.95	21.98	23.00
		15	0	22.02	21.96	21.97	23.00
	16QAM	1	0	22.35	22.31	22.34	23.00
		1	7	22.38	22.27	22.34	23.00
		1	14	22.39	22.31	22.31	23.00
		8	0	21.13	21.08	21.10	22.00
		8	4	21.15	21.10	21.09	22.00
		8	7	21.11	21.10	21.08	22.00
		15	0	21.09	21.03	21.02	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	22.88	22.87	22.87	24.00
		1	13	23.00	22.92	22.93	24.00
		1	24	22.89	22.81	22.82	24.00
		12	0	22.03	21.96	22.03	23.00
		12	6	22.08	22.04	22.05	23.00
		12	13	22.03	21.97	21.97	23.00

		25	0	22.05	21.97	22.01	23.00
	16QAM	1	0	22.36	22.29	22.29	23.00
		1	13	22.47	22.40	22.34	23.00
		1	24	22.32	22.24	22.26	23.00
		12	0	21.04	21.01	21.04	22.00
		12	6	21.09	21.06	21.09	22.00
		12	13	21.02	21.00	21.01	22.00
		25	0	21.08	21.03	21.05	22.00
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up
				20000/1715	20175/1732.5	20350/1750	
10MHz	QPSK	1	0	22.98	22.96	22.97	24.00
		1	25	23.08	23.04	23.07	24.00
		1	49	22.95	22.87	22.90	24.00
		25	0	22.11	22.02	22.04	23.00
		25	13	22.10	22.04	22.05	23.00
		25	25	22.01	22.04	22.00	23.00
		50	0	22.10	22.04	22.04	23.00
	16QAM	1	0	22.39	22.39	22.29	23.00
		1	25	22.46	22.46	22.39	23.00
		1	49	22.36	22.27	22.31	23.00
		25	0	21.16	21.06	21.13	22.00
		25	13	21.13	21.09	21.10	22.00
		25	25	21.11	21.08	21.03	22.00
		50	0	21.13	21.07	21.09	22.00
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up
				20025/1717.5	20175/1732.5	20325/1747.5	
15MHz	QPSK	1	0	22.97	22.97	22.97	24.00
		1	38	22.96	22.97	22.94	24.00
		1	74	22.87	22.84	22.87	24.00
		36	0	22.08	22.04	22.06	23.00
		36	18	22.03	22.02	22.02	23.00
		36	39	22.01	22.02	21.97	23.00
		75	0	22.05	22.00	22.01	23.00
	16QAM	1	0	22.36	22.36	22.38	23.00
		1	38	22.38	22.35	22.29	23.00
		1	74	22.26	22.22	22.26	23.00
		36	0	21.11	21.09	21.07	22.00
		36	18	21.08	21.06	21.05	22.00
		36	39	21.06	21.04	20.98	22.00
		75	0	21.06	21.02	21.06	22.00
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up
				20050/1720	20175/1732.5	20300/1745	
20MHz	QPSK	1	0	22.87	22.90	22.83	24.00

		1	50	**23.08**	**23.00**	**23.01**	24.00
		1	99	22.76	22.77	22.77	24.00
		50	0	**22.09**	**22.01**	**22.03**	23.00
		50	25	22.07	**22.01**	**22.03**	23.00
		50	50	22.00	21.99	21.90	23.00
		100	0	**22.06**	22.00	21.97	23.00
	16QAM	1	0	22.31	22.33	22.34	23.00
		1	50	22.41	22.49	22.46	23.00
		1	99	22.18	22.25	22.24	23.00
		50	0	21.12	21.03	21.08	22.00
		50	25	21.10	21.03	21.07	22.00
		50	50	21.03	21.02	20.93	22.00
		100	0	21.10	21.02	20.99	22.00

LTE B4							
Sensor on				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	13.20	12.97	12.95	14.00
		1	2	13.42	13.26	13.26	14.00
		1	5	13.15	13.13	13.11	14.00
		3	0	13.22	13.24	13.23	14.00
		3	2	13.21	13.27	13.26	14.00
		3	3	13.25	13.24	13.22	14.00
		6	0	13.28	13.21	13.24	14.00
	16QAM	1	0	13.53	13.48	13.45	14.00
		1	2	13.70	13.62	13.64	14.00
		1	5	13.53	13.51	13.50	14.00
		3	0	13.31	13.32	13.22	14.00
		3	2	13.35	13.34	13.28	14.00
		3	3	13.31	13.28	13.26	14.00
		6	0	13.42	13.36	13.34	14.00
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up
				19965/1711.5	20175/1732.5	20385/1753.5	
3MHz	QPSK	1	0	12.48	13.23	13.08	14.00
		1	7	13.24	13.23	13.26	14.00
		1	14	13.26	13.23	13.22	14.00
		8	0	13.25	13.24	13.28	14.00
		8	4	13.30	13.29	13.27	14.00
		8	7	13.30	13.23	13.26	14.00
		15	0	13.26	13.22	13.24	14.00
	16QAM	1	0	13.70	13.64	13.61	14.00
		1	7	13.68	13.61	13.61	14.00

		1	14	13.69	13.55	13.60	14.00
		8	0	13.36	13.34	13.37	14.00
		8	4	13.41	13.36	13.41	14.00
		8	7	13.39	13.33	13.37	14.00
		15	0	13.30	13.25	13.27	14.00
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up
				19975/1712.5	20175/1732.5	20375/1752.5	
5MHz	QPSK	1	0	12.38	12.95	12.96	14.00
		1	13	13.28	13.28	13.23	14.00
		1	24	13.13	13.09	13.13	14.00
		12	0	13.29	13.25	13.25	14.00
		12	6	13.33	13.28	13.29	14.00
		12	13	13.27	13.25	13.26	14.00
		25	0	13.28	13.24	13.28	14.00
	16QAM	1	0	13.55	13.45	13.45	14.00
		1	13	13.68	13.55	13.49	14.00
		1	24	13.54	13.39	13.43	14.00
		12	0	13.32	13.25	13.32	14.00
		12	6	13.34	13.31	13.35	14.00
		12	13	13.31	13.26	13.26	14.00
		25	0	13.29	13.29	13.33	14.00
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up
				20000/1715	20175/1732.5	20350/1750	
10MHz	QPSK	1	0	12.52	12.97	12.96	14.00
		1	25	13.33	13.39	13.36	14.00
		1	49	13.25	13.19	13.23	14.00
		25	0	13.36	13.35	13.34	14.00
		25	13	13.35	13.31	13.31	14.00
		25	25	13.31	13.28	13.30	14.00
		50	0	13.35	13.30	13.33	14.00
	16QAM	1	0	13.61	13.62	13.63	14.00
		1	25	13.72	13.73	13.72	14.00
		1	49	13.58	13.53	13.55	14.00
		25	0	13.39	13.35	13.34	14.00
		25	13	13.39	13.35	13.34	14.00
		25	25	13.33	13.31	13.35	14.00
		50	0	13.32	13.36	13.35	14.00
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up
				20025/1717.5	20175/1732.5	20325/1747.5	
15MHz	QPSK	1	0	12.35	13.06	12.98	14.00
		1	38	13.24	13.24	13.24	14.00
		1	74	13.16	13.15	13.15	14.00
		36	0	13.33	13.29	13.31	14.00

		36	18	13.29	13.28	13.28	14.00
		36	39	13.27	13.30	13.23	14.00
		75	0	13.29	13.28	13.30	14.00
	16QAM	1	0	13.58	13.62	13.64	14.00
		1	38	13.61	13.60	13.62	14.00
		1	74	13.51	13.55	13.50	14.00
		36	0	13.31	13.32	13.32	14.00
		36	18	13.31	13.29	13.31	14.00
		36	39	13.30	13.26	13.27	14.00
		75	0	13.30	13.28	13.34	14.00
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up
				20050/1720	20175/1732.5	20300/1745	
20MHz	QPSK	1	0	12.45	13.23	13.00	14.00
		1	50	**13.39**	**13.31**	**13.36**	14.00
		1	99	13.13	13.12	13.07	14.00
		50	0	13.34	**13.30**	**13.33**	14.00
		50	25	**13.37**	13.28	13.32	14.00
		50	50	13.26	13.24	13.23	14.00
		100	0	**13.30**	13.28	13.25	14.00
	16QAM	1	0	13.60	13.60	13.53	14.00
		1	50	13.76	13.65	13.63	14.00
		1	99	13.52	13.46	13.44	14.00
		50	0	13.35	13.34	13.36	14.00
		50	25	13.40	13.31	13.33	14.00
		50	50	13.28	13.26	13.26	14.00
		100	0	13.31	13.27	13.29	14.00

LTE B5							
Pmax&Sensor off				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	23.18	23.17	23.13	24.00
		1	2	23.33	23.29	23.26	24.00
		1	5	23.17	23.19	23.13	24.00
		3	0	23.29	23.28	23.26	24.00
		3	2	23.34	23.26	23.30	24.00
		3	3	23.30	23.30	23.26	24.00
		6	0	22.36	22.31	22.31	23.00
	16QAM	1	0	22.51	22.51	22.50	23.00
		1	2	22.60	22.64	22.62	23.00
		1	5	22.50	22.50	22.43	23.00
		3	0	22.39	22.33	22.26	23.00
		3	2	22.44	22.34	22.32	23.00

		3	3	22.36	22.31	22.25	23.00
		6	0	21.49	21.38	21.42	22.00
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up
				20415/825.5	20525/836.5	20635/847.5	
3MHz	QPSK	1	0	23.26	23.24	23.24	24.00
		1	7	23.20	23.24	23.19	24.00
		1	14	23.21	23.26	23.18	24.00
		8	0	22.27	22.32	22.28	23.00
		8	4	22.35	22.34	22.33	23.00
		8	7	22.30	22.32	22.28	23.00
		15	0	22.34	22.32	22.29	23.00
	16QAM	1	0	22.60	22.60	22.58	23.00
		1	7	22.58	22.62	22.55	23.00
		1	14	22.54	22.62	22.49	23.00
		8	0	21.42	21.41	21.37	22.00
		8	4	21.39	21.46	21.38	22.00
		8	7	21.37	21.39	21.34	22.00
		15	0	21.34	21.35	21.32	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	23.14	23.16	23.12	24.00
		1	13	23.22	23.26	23.24	24.00
		1	24	23.10	23.18	23.12	24.00
		12	0	22.30	22.30	22.29	23.00
		12	6	22.32	22.33	22.29	23.00
		12	13	22.28	22.29	22.20	23.00
		25	0	22.33	22.31	22.26	23.00
	16QAM	1	0	22.52	22.50	22.40	23.00
		1	13	22.60	22.61	22.56	23.00
		1	24	22.47	22.56	22.39	23.00
		12	0	21.31	21.33	21.29	22.00
		12	6	21.31	21.34	21.33	22.00
		12	13	21.30	21.28	21.21	22.00
		25	0	21.34	21.33	21.28	22.00
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up
				20450/829	20525/836.5	20600/844	
10MHz	QPSK	1	0	23.23	23.22	23.19	24.00
		1	25	**23.32**	**23.34**	**23.24**	24.00
		1	49	23.25	23.28	23.19	24.00
		25	0	22.30	22.37	**22.30**	23.00
		25	13	22.33	**22.38**	22.29	23.00
		25	25	**22.41**	22.37	22.20	23.00
		50	0	22.37	**22.38**	22.26	23.00

	16QAM	1	0	22.51	22.54	22.57	23.00
		1	25	22.53	22.64	22.60	23.00
		1	49	22.57	22.66	22.54	23.00
		25	0	21.30	21.38	21.29	22.00
		25	13	21.33	21.39	21.34	22.00
		25	25	21.43	21.38	21.21	22.00
		50	0	21.37	21.39	21.27	22.00

LTE B5							
Sensor on				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			
				20407/824.7	20525/836.5	20643/848.3	
1.4MHz	QPSK	1	0	20.40	20.55	20.55	21.00
		1	2	20.33	20.66	20.72	21.00
		1	5	20.29	20.54	20.55	21.00
		3	0	20.55	20.62	20.66	21.00
		3	2	20.68	20.68	20.71	21.00
		3	3	20.69	20.60	20.66	21.00
		6	0	20.68	20.62	20.63	21.00
	16QAM	1	0	20.67	20.56	20.55	21.00
		1	2	20.77	20.72	20.68	21.00
		1	5	20.58	20.58	20.61	21.00
		3	0	20.73	20.73	20.64	21.00
		3	2	20.73	20.79	20.70	21.00
		3	3	20.73	20.71	20.64	21.00
		6	0	20.79	20.73	20.73	21.00
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up
				20415/825.5	20525/836.5	20635/847.5	
3MHz	QPSK	1	0	20.64	20.57	20.61	21.00
		1	7	20.57	20.57	20.57	21.00
		1	14	20.61	20.62	20.59	21.00
		8	0	20.63	20.61	20.60	21.00
		8	4	20.67	20.66	20.64	21.00
		8	7	20.64	20.64	20.62	21.00
		15	0	20.59	20.62	20.64	21.00
	16QAM	1	0	20.71	20.61	20.64	21.00
		1	7	20.68	20.67	20.66	21.00
		1	14	20.68	20.67	20.63	21.00
		8	0	20.70	20.73	20.71	21.00
		8	4	20.73	20.73	20.77	21.00
		8	7	20.73	20.72	20.71	21.00
		15	0	20.71	20.70	20.68	21.00

Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up
				20425/826.5	20525/836.5	20625/846.5	
5MHz	QPSK	1	0	20.55	20.55	20.48	21.00
		1	13	20.63	20.62	20.64	21.00
		1	24	20.53	20.53	20.52	21.00
		12	0	20.67	20.64	20.61	21.00
		12	6	20.69	20.69	20.66	21.00
		12	13	20.61	20.59	20.55	21.00
		25	0	20.67	20.60	20.57	21.00
	16QAM	1	0	20.55	20.55	20.55	21.00
		1	13	20.67	20.68	20.67	21.00
		1	24	20.57	20.52	20.57	21.00
		12	0	20.62	20.64	20.63	21.00
		12	6	20.69	20.72	20.66	21.00
		12	13	20.60	20.61	20.57	21.00
		25	0	20.68	20.67	20.64	21.00
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up
				20450/829	20525/836.5	20600/844	
10MHz	QPSK	1	0	20.62	20.57	20.61	21.00
		1	25	**20.67**	**20.73**	20.57	21.00
		1	49	20.66	20.64	**20.63**	21.00
		25	0	20.63	20.64	20.63	21.00
		25	13	20.64	20.68	**20.64**	21.00
		25	25	**20.78**	**20.71**	20.57	21.00
		50	0	20.67	**20.70**	20.61	21.00
	16QAM	1	0	20.58	20.58	20.68	21.00
		1	25	20.67	20.73	20.66	21.00
		1	49	20.65	20.68	20.66	21.00
		25	0	20.67	20.70	20.64	21.00
		25	13	20.66	20.70	20.68	21.00
		25	25	20.76	20.70	20.55	21.00
		50	0	20.70	20.72	20.66	21.00

LTE B7							
Pmax&Sensor off				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	22.60	22.64	22.73	24.00
		1	13	22.71	22.76	22.91	24.00
		1	24	22.62	22.66	22.77	24.00
		12	0	21.78	21.83	21.91	23.00
		12	6	21.87	21.90	21.97	23.00
		12	13	21.81	21.86	21.93	23.00

		25	0	21.82	21.87	21.92	23.00
	16QAM	1	0	21.91	21.89	22.00	23.00
		1	13	22.06	22.05	22.14	23.00
		1	24	21.92	21.96	22.00	23.00
		12	0	20.72	20.78	20.87	22.00
		12	6	20.79	20.84	20.95	22.00
		12	13	20.76	20.78	20.90	22.00
		25	0	20.77	20.82	20.89	22.00
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up
				20800/2505	21100/2535	21400/2565	
10MHz	QPSK	1	0	22.66	22.75	22.77	24.00
		1	25	22.88	22.87	22.98	24.00
		1	49	22.78	22.82	22.86	24.00
		25	0	21.89	21.93	21.99	23.00
		25	13	21.92	21.95	22.01	23.00
		25	25	21.93	21.98	22.05	23.00
		50	0	21.91	21.98	22.05	23.00
	16QAM	1	0	21.93	21.98	22.01	23.00
		1	25	22.09	22.10	22.20	23.00
		1	49	22.06	22.05	22.06	23.00
		25	0	20.86	20.88	20.95	22.00
		25	13	20.88	20.90	20.98	22.00
		25	25	20.87	20.93	21.02	22.00
		50	0	20.88	20.93	21.01	22.00
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up
				20825/2507.5	21100/2535	21375/2562.5	
15MHz	QPSK	1	0	22.67	22.73	22.73	24.00
		1	38	22.85	22.86	22.89	24.00
		1	74	22.77	22.84	22.86	24.00
		36	0	21.88	21.89	21.93	23.00
		36	18	21.89	21.99	22.00	23.00
		36	39	21.92	21.98	22.00	23.00
		75	0	21.89	21.95	22.00	23.00
	16QAM	1	0	21.89	21.93	22.03	23.00
		1	38	22.10	22.02	22.16	23.00
		1	74	22.06	22.06	22.14	23.00
		36	0	20.79	20.81	20.88	22.00
		36	18	20.85	20.93	20.95	22.00
		36	39	20.88	20.91	20.97	22.00
		75	0	20.85	20.89	20.96	22.00
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up
				20850/2510	21100/2535	21350/2560	
20MHz	QPSK	1	0	22.56	22.56	22.67	24.00

		1	50	**22.86**	**22.86**	**22.97**	24.00
		1	99	22.69	22.76	22.79	24.00
		50	0	21.89	21.90	21.97	23.00
		50	25	21.94	**22.00**	21.99	23.00
		50	50	**21.99**	21.97	**22.01**	23.00
		100	0	21.92	21.89	**21.98**	23.00
	16QAM	1	0	21.77	21.87	22.00	23.00
		1	50	22.13	22.15	22.28	23.00
		1	99	21.94	22.08	22.10	23.00
		50	0	20.85	20.84	20.92	22.00
		50	25	20.90	20.96	20.97	22.00
		50	50	20.97	20.91	20.97	22.00
		100	0	20.90	20.82	20.96	22.00

LTE B7							
Sensor on				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	10.98	11.17	11.50	12.00
		1	13	11.12	11.09	11.07	12.00
		1	24	11.02	10.99	10.98	12.00
		12	0	11.07	11.10	11.08	12.00
		12	6	11.18	11.15	11.15	12.00
		12	13	11.16	11.13	11.08	12.00
		25	0	11.14	11.10	11.09	12.00
	16QAM	1	0	11.35	11.28	11.24	12.00
		1	13	11.47	11.46	11.46	12.00
		1	24	11.37	11.31	11.32	12.00
		12	0	11.08	11.11	11.09	12.00
		12	6	11.19	11.17	11.14	12.00
		12	13	11.17	11.14	11.07	12.00
		25	0	11.12	11.14	11.08	12.00
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up
				20800/2505	21100/2535	21400/2565	
10MHz	QPSK	1	0	10.91	11.06	10.96	12.00
		1	25	11.24	11.20	11.24	12.00
		1	49	11.16	11.16	11.08	12.00
		25	0	11.13	11.17	11.19	12.00
		25	13	11.22	11.21	11.16	12.00
		25	25	11.23	11.20	11.14	12.00
		50	0	11.20	11.25	11.17	12.00
	16QAM	1	0	11.46	11.42	11.31	12.00
		1	25	11.57	11.61	11.52	12.00

		1	49	11.46	11.46	11.40	12.00
		25	0	11.14	11.24	11.20	12.00
		25	13	11.23	11.21	11.16	12.00
		25	25	11.30	11.23	11.15	12.00
		50	0	11.22	11.26	11.18	12.00
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up
				20825/2507.5	21100/2535	21375/2562.5	
15MHz	QPSK	1	0	10.65	10.95	10.88	12.00
		1	38	11.20	11.13	11.09	12.00
		1	74	11.14	11.15	11.06	12.00
		36	0	11.15	11.15	11.10	12.00
		36	18	11.22	11.22	11.15	12.00
		36	39	11.24	11.22	11.13	12.00
		75	0	11.19	11.21	11.16	12.00
	16QAM	1	0	11.38	11.38	11.28	12.00
		1	38	11.50	11.46	11.43	12.00
		1	74	11.47	11.45	11.43	12.00
		36	0	11.11	11.13	11.09	12.00
		36	18	11.19	11.19	11.12	12.00
		36	39	11.22	11.21	11.11	12.00
		75	0	11.20	11.22	11.15	12.00
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up
				20850/2510	21100/2535	21350/2560	
20MHz	QPSK	1	0	11.11	**11.30**	**11.31**	12.00
		1	50	**11.27**	11.26	11.14	12.00
		1	99	11.11	11.12	11.04	12.00
		50	0	11.09	11.13	11.09	12.00
		50	25	**11.10**	**11.18**	**11.19**	12.00
		50	50	11.06	11.16	11.08	12.00
		100	0	**11.18**	11.13	11.13	12.00
	16QAM	1	0	11.29	11.30	11.30	12.00
		1	50	11.57	11.60	11.46	12.00
		1	99	11.43	11.53	11.34	12.00
		50	0	11.09	11.16	11.12	12.00
		50	25	11.21	11.27	11.15	12.00
		50	50	11.25	11.18	11.11	12.00
		100	0	11.18	11.15	11.15	12.00

LTE B12							
Pmax&Sensor off				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			
				23017/699.7	23095/707.5	23173/715.3	
1.4MHz	QPSK	1	0	23.21	23.10	23.06	24.00
		1	2	23.40	23.21	23.18	24.00
		1	5	23.28	23.13	23.04	24.00
		3	0	23.31	23.20	23.21	24.00
		3	2	23.33	23.23	23.21	24.00
		3	3	23.35	23.23	23.16	24.00
		6	0	22.36	22.25	22.21	23.00
	16QAM	1	0	22.47	22.36	22.38	23.00
		1	2	22.65	22.44	22.52	23.00
		1	5	22.54	22.39	22.38	23.00
		3	0	22.36	22.17	22.17	23.00
		3	2	22.41	22.22	22.20	23.00
		3	3	22.40	22.21	22.14	23.00
		6	0	21.42	21.33	21.32	22.00
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up
				23025/700.5	23095/707.5	23165/714.5	
3MHz	QPSK	1	0	23.17	23.16	23.16	24.00
		1	7	23.20	23.12	23.12	24.00
		1	14	23.23	23.16	23.13	24.00
		8	0	22.20	22.18	22.21	23.00
		8	4	22.26	22.27	22.24	23.00
		8	7	22.23	22.23	22.21	23.00
		15	0	22.22	22.23	22.22	23.00
	16QAM	1	0	22.51	22.46	22.47	23.00
		1	7	22.54	22.40	22.44	23.00
		1	14	22.59	22.44	22.41	23.00
		8	0	21.27	21.30	21.29	22.00
		8	4	21.30	21.31	21.28	22.00
		8	7	21.32	21.30	21.27	22.00
		15	0	21.28	21.26	21.22	22.00
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up
				23035/701.5	23095/707.5	23155/713.5	
5MHz	QPSK	1	0	23.05	23.07	23.06	24.00
		1	13	23.21	23.16	23.22	24.00
		1	24	23.15	23.03	23.10	24.00
		12	0	22.27	22.17	22.23	23.00
		12	6	22.32	22.29	22.26	23.00
		12	13	22.27	22.26	22.18	23.00

		25	0	22.26	22.28	22.23	23.00
	16QAM	1	0	22.35	22.42	22.28	23.00
		1	13	22.50	22.47	22.47	23.00
		1	24	22.50	22.36	22.32	23.00
		12	0	21.24	21.20	21.21	22.00
		12	6	21.28	21.26	21.26	22.00
		12	13	21.25	21.22	21.18	22.00
		25	0	21.26	21.23	21.22	22.00
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up
				23060/704	23095/707.5	23130/711	
10MHz	QPSK	1	0	23.16	23.14	23.10	24.00
		1	25	**23.32**	**23.24**	**23.19**	24.00
		1	49	23.26	23.19	23.16	24.00
		25	0	22.24	22.22	22.18	23.00
		25	13	22.31	22.26	**22.23**	23.00
		25	25	**22.33**	**22.29**	22.20	23.00
		50	0	**22.27**	**22.27**	22.24	23.00
	16QAM	1	0	22.39	22.45	22.40	23.00
		1	25	22.58	22.50	22.43	23.00
		1	49	22.47	22.41	22.46	23.00
		25	0	21.28	21.23	21.19	22.00
		25	13	21.30	21.28	21.20	22.00
		25	25	21.32	21.24	21.18	22.00
		50	0	21.30	21.26	21.24	22.00

LTE B12							
Sensor on				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			
				23017/699.7	23095/707.5	23173/715.3	
1.4MHz	QPSK	1	0	20.57	20.54	20.48	21.00
		1	2	20.70	20.64	20.62	21.00
		1	5	20.57	20.55	20.54	21.00
		3	0	20.64	20.62	20.61	21.00
		3	2	20.70	20.62	20.66	21.00
		3	3	20.68	20.62	20.63	21.00
		6	0	20.64	20.66	20.61	21.00
	16QAM	1	0	20.70	20.67	20.57	21.00
		1	2	20.87	20.76	20.76	21.00
		1	5	20.75	20.67	20.62	21.00
		3	0	20.64	20.59	20.64	21.00
		3	2	20.63	20.64	20.64	21.00
		3	3	20.66	20.63	20.63	21.00
		6	0	20.73	20.72	20.68	21.00

Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up
				23025/700.5	23095/707.5	23165/714.5	
3MHz	QPSK	1	0	20.61	20.59	20.60	21.00
		1	7	20.63	20.60	20.59	21.00
		1	14	20.68	20.62	20.57	21.00
		8	0	20.60	20.60	20.60	21.00
		8	4	20.64	20.67	20.63	21.00
		8	7	20.63	20.64	20.60	21.00
		15	0	20.62	20.63	20.60	21.00
	16QAM	1	0	20.69	20.67	20.65	21.00
		1	7	20.72	20.60	20.63	21.00
		1	14	20.76	20.64	20.63	21.00
		8	0	20.73	20.69	20.68	21.00
		8	4	20.76	20.75	20.70	21.00
		8	7	20.73	20.75	20.66	21.00
		15	0	20.67	20.69	20.66	21.00
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up
				23035/701.5	23095/707.5	23155/713.5	
5MHz	QPSK	1	0	20.46	20.46	20.50	21.00
		1	13	20.64	20.60	20.64	21.00
		1	24	20.59	20.46	20.54	21.00
		12	0	20.64	20.59	20.62	21.00
		12	6	20.71	20.66	20.66	21.00
		12	13	20.64	20.69	20.59	21.00
		25	0	20.67	20.64	20.63	21.00
	16QAM	1	0	20.56	20.62	20.51	21.00
		1	13	20.79	20.67	20.67	21.00
		1	24	20.70	20.56	20.55	21.00
		12	0	20.68	20.59	20.64	21.00
		12	6	20.73	20.68	20.69	21.00
		12	13	20.69	20.66	20.60	21.00
		25	0	20.71	20.66	20.68	21.00
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up
				23060/704	23095/707.5	23130/711	
10MHz	QPSK	1	0	20.55	20.55	20.55	21.00
		1	25	**20.69**	**20.69**	**20.66**	21.00
		1	49	20.67	20.57	**20.66**	21.00
		25	0	20.63	20.61	20.59	21.00
		25	13	20.64	**20.68**	20.63	21.00
		25	25	**20.72**	20.67	**20.64**	21.00
		50	0	**20.67**	**20.67**	20.64	21.00
	16QAM	1	0	20.69	20.60	20.67	21.00
		1	25	20.85	20.74	20.80	21.00

		1	49	20.71	20.72	20.75	21.00
		25	0	20.67	20.64	20.63	21.00
		25	13	20.70	20.70	20.66	21.00
		25	25	20.73	20.70	20.67	21.00
		50	0	20.73	20.70	20.64	21.00

LTE B13							
Pmax&Sensor off				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	23.17	23.23	23.17	24.00
		1	13	23.33	23.31	23.38	24.00
		1	24	23.20	23.16	23.17	24.00
		12	0	22.29	22.35	22.32	23.00
		12	6	22.46	22.44	22.45	23.00
		12	13	22.43	22.39	22.33	23.00
		25	0	22.40	22.38	22.33	23.00
	16QAM	1	0	22.52	22.59	22.53	23.00
		1	13	22.76	22.70	22.67	23.00
		1	24	22.61	22.57	22.49	23.00
		12	0	21.27	21.33	21.32	22.00
		12	6	21.41	21.44	21.41	22.00
		12	13	21.41	21.39	21.32	22.00
		25	0	21.37	21.40	21.34	22.00
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up
				/	23230/782	/	
10MHz	QPSK	1	0	/	23.28	/	24.00
		1	25	/	**23.39**	/	24.00
		1	49	/	23.20	/	24.00
		25	0	/	22.27	/	23.00
		25	13	/	22.43	/	23.00
		25	25	/	**22.44**	/	23.00
		50	0	/	**22.37**	/	23.00
	16QAM	1	0	/	22.57	/	23.00
		1	25	/	22.79	/	23.00
		1	49	/	22.59	/	23.00
		25	0	/	21.25	/	22.00
		25	13	/	21.41	/	22.00
		25	25	/	21.44	/	22.00
		50	0	/	21.36	/	22.00

LTE B13							
Sensor on				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	19.55	19.57	19.55	20.00
		1	13	19.70	19.70	19.67	20.00
		1	24	19.57	19.52	19.48	20.00
		12	0	19.59	19.64	19.67	20.00
		12	6	19.78	19.77	19.73	20.00
		12	13	19.77	19.70	19.62	20.00
		25	0	19.73	19.68	19.64	20.00
	16QAM	1	0	19.63	19.72	19.69	20.00
		1	13	19.85	19.83	19.89	20.00
		1	24	19.70	19.67	19.65	20.00
		12	0	19.64	19.71	19.67	20.00
		12	6	19.80	19.79	19.75	20.00
		12	13	19.80	19.68	19.64	20.00
		25	0	19.75	19.70	19.68	20.00
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up
				/	23230/782	/	
10MHz	QPSK	1	0	/	19.62	/	20.00
		1	25	/	**19.79**	/	20.00
		1	49	/	19.59	/	20.00
		25	0	/	19.57	/	20.00
		25	13	/	**19.73**	/	20.00
		25	25	/	19.68	/	20.00
		50	0	/	**19.64**	/	20.00
	16QAM	1	0	/	19.80	/	20.00
		1	25	/	19.95	/	20.00
		1	49	/	19.76	/	20.00
		25	0	/	19.61	/	20.00
		25	13	/	19.79	/	20.00
		25	25	/	19.73	/	20.00
		50	0	/	19.64	/	20.00

LTE B14							
Pmax&Sensor off				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			
				23305/790.5	23330/793	23355/795.5	
5MHz	QPSK	1	0	23.05	23.06	23.03	24.00
		1	13	23.16	23.16	23.17	24.00
		1	24	23.02	23.04	23.05	24.00

		12	0	22.27	22.22	22.17	23.00
		12	6	22.29	22.26	22.28	23.00
		12	13	22.22	22.21	22.23	23.00
		25	0	22.24	22.22	22.23	23.00
	16QAM	1	0	22.35	22.32	22.32	23.00
		1	13	22.53	22.43	22.47	23.00
		1	24	22.34	22.29	22.33	23.00
		12	0	21.25	21.23	21.20	22.00
		12	6	21.26	21.26	21.26	22.00
		12	13	21.21	21.23	21.24	22.00
		25	0	21.22	21.22	21.24	22.00
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up
				/	23330/793	/	
10MHz	QPSK	1	0	/	23.22	/	24.00
		1	25	/	**23.27**	/	24.00
		1	49	/	23.14	/	24.00
		25	0	/	22.33	/	23.00
		25	13	/	22.28	/	23.00
		25	25	/	**22.34**	/	23.00
		50	0	/	**22.32**	/	23.00
	16QAM	1	0	/	22.49	/	23.00
		1	25	/	22.54	/	23.00
		1	49	/	22.43	/	23.00
		25	0	/	21.32	/	22.00
		25	13	/	21.30	/	22.00
		25	25	/	21.33	/	22.00
		50	0	/	21.31	/	22.00

LTE B14							
Sensor on				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			
				23305/790.5	23330/793	23355/795.5	
5MHz	QPSK	1	0	19.43	19.39	19.39	20.00
		1	13	19.55	19.54	19.53	20.00
		1	24	19.37	19.37	19.39	20.00
		12	0	19.55	19.55	19.51	20.00
		12	6	19.63	19.60	19.60	20.00
		12	13	19.55	19.54	19.53	20.00
		25	0	19.55	19.55	19.54	20.00
	16QAM	1	0	19.78	19.82	19.73	20.00
		1	13	19.81	19.86	19.84	20.00
		1	24	19.70	19.75	19.72	20.00
		12	0	19.57	19.55	19.51	20.00

		12	6	19.64	19.57	19.61	20.00
		12	13	19.55	19.57	19.55	20.00
		25	0	19.60	19.55	19.57	20.00
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up
				/	23330/793	/	
10MHz	QPSK	1	0	/	19.55	/	20.00
		1	25	/	**19.64**	/	20.00
		1	49	/	19.53	/	20.00
		25	0	/	19.62	/	20.00
		25	13	/	19.57	/	20.00
		25	25	/	**19.64**	/	20.00
		50	0	/	**19.61**	/	20.00
	16QAM	1	0	/	19.89	/	20.00
		1	25	/	19.70	/	20.00
		1	49	/	19.88	/	20.00
		25	0	/	19.63	/	20.00
		25	13	/	19.60	/	20.00
		25	25	/	19.64	/	20.00
		50	0	/	19.64	/	20.00

LTE B17							
Pmax&Sensor off				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			
				23755/706.5	23790/710	23825/713.5	
5MHz	QPSK	1	0	23.07	23.06	23.00	24.00
		1	13	23.21	23.10	23.15	24.00
		1	24	23.12	23.05	23.06	24.00
		12	0	22.18	22.19	22.19	23.00
		12	6	22.29	22.28	22.24	23.00
		12	13	22.30	22.19	22.15	23.00
		25	0	22.25	22.20	22.22	23.00
	16QAM	1	0	22.32	22.27	22.29	23.00
		1	13	22.44	22.38	22.43	23.00
		1	24	22.36	22.28	22.34	23.00
		12	0	21.15	21.16	21.19	22.00
		12	6	21.26	21.24	21.22	22.00
		12	13	21.26	21.16	21.16	22.00
		25	0	21.24	21.17	21.17	22.00
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up
				23780/709	23790/710	23800/711	
10MHz	QPSK	1	0	23.13	23.14	23.18	24.00
		1	25	**23.26**	23.19	23.19	24.00
		1	49	23.19	**23.23**	**23.23**	24.00

		25	0	22.19	**22.21**	22.23	23.00
		25	13	**22.26**	22.20	**22.26**	23.00
		25	25	22.23	**22.21**	22.21	23.00
		50	0	22.24	22.21	**22.26**	23.00
	16QAM	1	0	22.37	22.48	22.43	23.00
		1	25	22.44	22.48	22.52	23.00
		1	49	22.50	22.53	22.48	23.00
		25	0	21.21	21.20	21.20	22.00
		25	13	21.24	21.21	21.27	22.00
		25	25	21.19	21.22	21.22	22.00
		50	0	21.22	21.21	21.25	22.00

LTE B17							
Sensor on				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			
				23755/706.5	23790/710	23825/713.5	
5MHz	QPSK	1	0	20.47	20.48	20.45	21.00
		1	13	20.66	20.60	20.60	21.00
		1	24	20.57	20.48	20.54	21.00
		12	0	20.60	20.57	20.61	21.00
		12	6	20.69	20.67	20.63	21.00
		12	13	20.64	20.61	20.57	21.00
		25	0	20.68	20.57	20.60	21.00
	16QAM	1	0	20.80	20.76	20.67	21.00
		1	13	20.66	20.82	20.82	21.00
		1	24	20.82	20.78	20.73	21.00
		12	0	20.60	20.60	20.61	21.00
		12	6	20.66	20.64	20.64	21.00
		12	13	20.68	20.61	20.54	21.00
		25	0	20.64	20.57	20.60	21.00
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up
				23780/709	23790/710	23800/711	
10MHz	QPSK	1	0	20.57	20.57	20.59	21.00
		1	25	**20.70**	**20.71**	**20.72**	21.00
		1	49	20.68	20.61	20.63	21.00
		25	0	20.59	20.60	20.61	21.00
		25	13	**20.62**	20.62	**20.64**	21.00
		25	25	20.59	**20.63**	**20.64**	21.00
		50	0	20.59	20.62	**20.67**	21.00
	16QAM	1	0	20.67	20.73	20.69	21.00
		1	25	20.75	20.82	20.82	21.00
		1	49	20.73	20.78	20.78	21.00
		25	0	20.63	20.63	20.62	21.00

		25	13	20.67	20.64	20.66	21.00
		25	25	20.64	20.62	20.64	21.00
		50	0	20.64	20.62	20.68	21.00

LTE B25							
Pmax&Sensor off				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			
				26047/1850.7	26365/1882,5	26683/1914.3	
1.4MHz	QPSK	1	0	22.63	22.55	22.53	24.00
		1	2	22.73	22.67	22.66	24.00
		1	5	22.58	22.54	22.56	24.00
		3	0	22.70	22.63	22.67	24.00
		3	2	22.75	22.71	22.68	24.00
		3	3	22.70	22.67	22.65	24.00
		6	0	21.72	21.67	21.68	23.00
	16QAM	1	0	22.02	21.87	21.82	23.00
		1	2	22.12	21.98	21.93	23.00
		1	5	21.99	21.89	21.83	23.00
		3	0	21.70	21.70	21.63	23.00
		3	2	21.79	21.76	21.63	23.00
		3	3	21.75	21.69	21.60	23.00
		6	0	20.86	20.80	20.79	22.00
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up
				26055/1851.5	26365/1882,5	26675/1913.5	
3MHz	QPSK	1	0	22.69	22.67	22.66	24.00
		1	7	22.68	22.65	22.65	24.00
		1	14	22.64	22.67	22.68	24.00
		8	0	21.75	21.70	21.72	23.00
		8	4	21.67	21.68	21.76	23.00
		8	7	21.69	21.69	21.69	23.00
		15	0	21.72	21.70	21.74	23.00
	16QAM	1	0	22.13	21.98	21.88	23.00
		1	7	22.10	21.99	21.90	23.00
		1	14	22.04	21.97	21.89	23.00
		8	0	20.86	20.85	20.83	22.00
		8	4	20.84	20.86	20.81	22.00
		8	7	20.80	20.82	20.81	22.00
		15	0	20.79	20.82	20.79	22.00
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up
				26065/1852.5	26365/1882,5	26665/1912.5	
5MHz	QPSK	1	0	22.63	22.63	22.54	24.00
		1	13	22.69	22.67	22.71	24.00
		1	24	22.56	22.58	22.58	24.00

		12	0	21.69	21.68	21.72	23.00
		12	6	21.79	21.76	21.77	23.00
		12	13	21.71	21.73	21.66	23.00
		25	0	21.74	21.76	21.71	23.00
	16QAM	1	0	21.93	21.90	21.85	23.00
		1	13	21.93	22.00	21.91	23.00
		1	24	21.84	21.92	21.80	23.00
		12	0	20.75	20.80	20.77	22.00
		12	6	20.78	20.82	20.83	22.00
		12	13	20.80	20.82	20.71	22.00
		25	0	20.81	20.84	20.79	22.00
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up
				26090/1855	26365/1882,5	26640/1910	
10MHz	QPSK	1	0	22.72	22.68	22.68	24.00
		1	25	22.78	22.81	22.78	24.00
		1	49	22.61	22.66	22.68	24.00
		25	0	21.70	21.81	21.76	23.00
		25	13	21.75	21.79	21.77	23.00
		25	25	21.81	21.80	21.71	23.00
		50	0	21.77	21.81	21.76	23.00
	16QAM	1	0	22.08	22.02	22.07	23.00
		1	25	22.10	22.12	22.14	23.00
		1	49	21.97	22.02	21.93	23.00
		25	0	20.78	20.85	20.82	22.00
		25	13	20.84	20.86	20.81	22.00
		25	25	20.86	20.87	20.75	22.00
		50	0	20.83	20.86	20.79	22.00
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up
				26115/1857.5	26365/1882,5	26615/1907.5	
15MHz	QPSK	1	0	22.74	22.69	22.62	24.00
		1	38	22.66	22.70	22.71	24.00
		1	74	22.58	22.63	22.61	24.00
		36	0	21.71	21.78	21.78	23.00
		36	18	21.76	21.80	21.81	23.00
		36	39	21.78	21.78	21.76	23.00
		75	0	21.70	21.79	21.73	23.00
	16QAM	1	0	22.03	22.01	21.96	23.00
		1	38	21.97	22.04	22.02	23.00
		1	74	21.86	21.88	21.84	23.00
		36	0	20.74	20.80	20.80	22.00
		36	18	20.81	20.82	20.82	22.00
		36	39	20.81	20.82	20.79	22.00
		75	0	20.79	20.87	20.80	22.00

Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up
				26140/1860	26365/1882,5	26590/1905	
20MHz	QPSK	1	0	22.69	22.63	22.57	24.00
		1	50	**22.83**	**22.81**	**22.85**	24.00
		1	99	22.56	22.58	22.60	24.00
		50	0	21.68	21.74	21.81	23.00
		50	25	**21.80**	**21.82**	**21.82**	23.00
		50	50	21.69	21.77	21.73	23.00
		100	0	21.69	21.78	**21.79**	23.00
	16QAM	1	0	22.02	21.96	21.85	23.00
		1	50	22.08	22.08	22.18	23.00
		1	99	21.82	21.85	21.91	23.00
		50	0	20.71	20.82	20.87	22.00
		50	25	20.85	20.88	20.86	22.00
		50	50	20.77	20.85	20.78	22.00
		100	0	20.73	20.87	20.80	22.00
LTE B25							
Sensor on				Maximum Output Power (dBm)			
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up
				26047/1850.7	26365/1882,5	26683/1914.3	
1.4MHz	QPSK	1	0	12.80	13.32	13.38	14.00
		1	2	13.14	13.15	13.25	14.00
		1	5	13.01	13.05	13.14	14.00
		3	0	13.11	13.14	13.19	14.00
		3	2	13.15	13.14	13.20	14.00
		3	3	13.11	13.15	13.26	14.00
		6	0	13.09	13.11	13.21	14.00
	16QAM	1	0	13.38	13.40	13.49	14.00
		1	2	13.47	13.49	13.67	14.00
		1	5	13.38	13.38	13.55	14.00
		3	0	13.20	13.11	13.25	14.00
		3	2	13.22	13.13	13.29	14.00
		3	3	13.16	13.13	13.23	14.00
		6	0	13.22	13.21	13.34	14.00
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up
				26055/1851.5	26365/1882,5	26675/1913.5	
3MHz	QPSK	1	0	12.78	13.48	13.57	14.00
		1	7	13.10	13.14	13.24	14.00
		1	14	13.10	13.16	13.27	14.00
		8	0	13.12	13.15	13.27	14.00
		8	4	13.11	13.16	13.26	14.00
		8	7	13.08	13.14	13.23	14.00
		15	0	13.08	13.12	13.26	14.00

	16QAM	1	0	13.48	13.41	13.55	14.00
		1	7	13.42	13.48	13.55	14.00
		1	14	13.36	13.40	13.57	14.00
		8	0	13.23	13.26	13.37	14.00
		8	4	13.20	13.23	13.39	14.00
		8	7	13.19	13.22	13.31	14.00
		15	0	13.10	13.16	13.32	14.00
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up
				26065/1852.5	26365/1882,5	26665/1912.5	
5MHz	QPSK	1	0	12.81	13.42	13.46	14.00
		1	13	13.11	13.16	13.26	14.00
		1	24	12.97	13.06	13.15	14.00
		12	0	13.07	13.16	13.24	14.00
		12	6	13.15	13.20	13.32	14.00
		12	13	13.12	13.19	13.26	14.00
		25	0	13.07	13.20	13.27	14.00
	16QAM	1	0	13.33	13.36	13.47	14.00
		1	13	13.39	13.45	13.68	14.00
		1	24	13.26	13.37	13.53	14.00
		12	0	13.08	13.15	13.23	14.00
		12	6	13.14	13.23	13.32	14.00
		12	13	13.12	13.18	13.26	14.00
		25	0	13.09	13.18	13.27	14.00
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up
				26090/1855	26365/1882,5	26640/1910	
10MHz	QPSK	1	0	12.90	13.66	13.60	14.00
		1	25	13.09	13.26	13.36	14.00
		1	49	13.09	13.16	13.28	14.00
		25	0	13.10	13.24	13.36	14.00
		25	13	13.12	13.26	13.31	14.00
		25	25	13.18	13.25	13.31	14.00
		50	0	13.15	13.27	13.31	14.00
	16QAM	1	0	13.45	13.48	13.52	14.00
		1	25	13.56	13.59	13.64	14.00
		1	49	13.46	13.51	13.58	14.00
		25	0	13.09	13.27	13.38	14.00
		25	13	13.20	13.25	13.34	14.00
		25	25	13.20	13.26	13.34	14.00
		50	0	13.17	13.27	13.33	14.00
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up
				26115/1857.5	26365/1882,5	26615/1907.5	
15MHz	QPSK	1	0	12.88	13.63	13.52	14.00
		1	38	13.11	13.15	13.27	14.00

		1	74	13.02	13.08	13.22	14.00
		36	0	13.13	13.22	13.30	14.00
		36	18	13.15	13.26	13.30	14.00
		36	39	13.19	13.23	13.30	14.00
		75	0	13.15	13.24	13.32	14.00
	16QAM	1	0	13.43	13.47	13.49	14.00
		1	38	13.43	13.50	13.59	14.00
		1	74	13.33	13.46	13.56	14.00
		36	0	13.07	13.21	13.28	14.00
		36	18	13.15	13.21	13.30	14.00
		36	39	13.16	13.21	13.34	14.00
		75	0	13.14	13.27	13.33	14.00
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up
				26140/1860	26365/1882,5	26590/1905	
20MHz	QPSK	1	0	12.87	**13.33**	**13.30**	14.00
		1	50	**13.20**	13.25	13.29	14.00
		1	99	13.02	13.08	13.15	14.00
		50	0	13.09	13.25	13.31	14.00
		50	25	**13.20**	**13.29**	**13.33**	14.00
		50	50	13.16	13.21	13.21	14.00
		100	0	13.08	13.21	**13.27**	14.00
	16QAM	1	0	13.41	13.39	13.36	14.00
		1	50	13.53	13.56	13.62	14.00
		1	99	13.36	13.38	13.47	14.00
		50	0	13.09	13.24	13.31	14.00
		50	25	13.20	13.26	13.31	14.00
		50	50	13.17	13.21	13.26	14.00
		100	0	13.11	13.23	13.31	14.00

LTE B26							
Pmax&Sensor off				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	23.14	23.15	23.12	24.00
		1	2	23.29	23.21	23.22	24.00
		1	5	23.17	23.14	23.09	24.00
		3	0	23.25	23.24	23.22	24.00
		3	2	23.28	23.24	23.23	24.00
		3	3	23.30	23.22	23.20	24.00
		6	0	22.32	22.28	22.26	23.00
	16QAM	1	0	22.41	22.39	22.42	23.00
		1	2	22.56	22.53	22.54	23.00
		1	5	22.43	22.41	22.34	23.00

		3	0	22.28	22.21	22.21	23.00
		3	2	22.31	22.25	22.25	23.00
		3	3	22.31	22.21	22.24	23.00
		6	0	21.40	21.34	21.32	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	23.17	23.18	23.21	24.00
		1	7	23.24	23.15	23.25	24.00
		1	14	23.22	23.15	23.20	24.00
		8	0	22.28	22.25	22.30	23.00
		8	4	22.32	22.30	22.31	23.00
		8	7	22.31	22.23	22.24	23.00
		15	0	22.28	22.28	22.25	23.00
	16QAM	1	0	22.45	22.44	22.58	23.00
		1	7	22.52	22.47	22.60	23.00
		1	14	22.53	22.46	22.43	23.00
		8	0	21.32	21.32	21.39	22.00
		8	4	21.40	21.37	21.36	22.00
		8	7	21.38	21.32	21.35	22.00
		15	0	21.27	21.27	21.30	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	23.12	23.07	23.01	24.00
		1	13	23.28	23.21	23.24	24.00
		1	24	23.16	23.03	23.05	24.00
		12	0	22.27	22.17	22.31	23.00
		12	6	22.37	22.30	22.33	23.00
		12	13	22.32	22.23	22.20	23.00
		25	0	22.37	22.25	22.32	23.00
	16QAM	1	0	22.44	22.37	22.41	23.00
		1	13	22.57	22.50	22.65	23.00
		1	24	22.49	22.38	22.37	23.00
		12	0	21.24	21.15	21.31	22.00
		12	6	21.37	21.29	21.36	22.00
		12	13	21.32	21.25	21.20	22.00
		25	0	21.34	21.25	21.32	22.00
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up
				26740/819	26865/831.5	26990/844	
10MHz	QPSK	1	0	23.16	23.14	23.20	24.00
		1	25	23.31	23.26	23.26	24.00
		1	49	23.27	23.17	23.19	24.00
		25	0	22.32	22.21	22.22	23.00
		25	13	22.34	22.32	22.28	23.00

		25	25	22.30	22.29	22.16	23.00
		50	0	22.31	22.28	22.22	23.00
	16QAM	1	0	22.51	22.51	22.55	23.00
		1	25	22.67	22.58	22.59	23.00
		1	49	22.65	22.55	22.50	23.00
		25	0	21.34	21.23	21.26	22.00
		25	13	21.35	21.31	21.29	22.00
		25	25	21.34	21.30	21.17	22.00
		50	0	21.34	21.24	21.25	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	23.14	23.11	23.05	24.00
		1	38	**23.26**	23.16	23.15	24.00
		1	74	23.18	**23.19**	**23.16**	24.00
		36	0	22.29	22.22	**22.30**	23.00
		36	18	22.32	**22.29**	22.29	23.00
		36	39	**22.36**	22.25	22.23	23.00
		75	0	**22.32**	22.24	22.23	23.00
	16QAM	1	0	22.39	22.42	22.46	23.00
		1	38	22.52	22.45	22.49	23.00
		1	74	22.46	22.54	22.50	23.00
		36	0	21.26	21.19	21.34	22.00
		36	18	21.32	21.26	21.25	22.00
		36	39	21.35	21.22	21.24	22.00
		75	0	21.33	21.25	21.27	22.00

LTE B26							
Sensor on				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	20.36	20.29	20.32	21.00
		1	2	20.46	20.46	20.45	21.00
		1	5	20.36	20.32	20.32	21.00
		3	0	20.45	20.39	20.42	21.00
		3	2	20.45	20.34	20.41	21.00
		3	3	20.42	20.39	20.39	21.00
		6	0	20.45	20.39	20.41	21.00
	16QAM	1	0	20.70	20.63	20.63	21.00
		1	2	20.80	20.72	20.73	21.00
		1	5	20.75	20.59	20.62	21.00
		3	0	20.49	20.45	20.50	21.00
		3	2	20.53	20.51	20.49	21.00
		3	3	20.53	20.49	20.41	21.00

		6	0	20.54	20.53	20.51	21.00
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up
				26705/815.5	26865/831.5	27025/847.5	
3MHz	QPSK	1	0	20.34	20.35	20.38	21.00
		1	7	20.39	20.39	20.39	21.00
		1	14	20.39	20.35	20.38	21.00
		8	0	20.39	20.37	20.43	21.00
		8	4	20.46	20.39	20.45	21.00
		8	7	20.46	20.37	20.38	21.00
		15	0	20.41	20.41	20.39	21.00
	16QAM	1	0	20.74	20.67	20.73	21.00
		1	7	20.72	20.70	20.78	21.00
		1	14	20.74	20.64	20.70	21.00
		8	0	20.52	20.46	20.53	21.00
		8	4	20.53	20.54	20.53	21.00
		8	7	20.58	20.46	20.50	21.00
		15	0	20.50	20.41	20.49	21.00
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up
				26715/816.5	26865/831.5	27015/846.5	
5MHz	QPSK	1	0	20.25	20.23	20.22	21.00
		1	13	20.42	20.37	20.43	21.00
		1	24	20.29	20.23	20.29	21.00
		12	0	20.38	20.30	20.43	21.00
		12	6	20.51	20.46	20.46	21.00
		12	13	20.48	20.39	20.35	21.00
		25	0	20.47	20.34	20.41	21.00
	16QAM	1	0	20.61	20.53	20.60	21.00
		1	13	20.85	20.68	20.80	21.00
		1	24	20.70	20.55	20.69	21.00
		12	0	20.44	20.38	20.48	21.00
		12	6	20.54	20.45	20.50	21.00
		12	13	20.51	20.38	20.39	21.00
		25	0	20.50	20.38	20.45	21.00
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up
				26740/819	26865/831.5	26990/844	
10MHz	QPSK	1	0	20.35	20.32	20.35	21.00
		1	25	20.52	20.46	20.42	21.00
		1	49	20.42	20.36	20.35	21.00
		25	0	20.45	20.38	20.39	21.00
		25	13	20.47	20.41	20.42	21.00
		25	25	20.44	20.44	20.30	21.00
		50	0	20.47	20.39	20.35	21.00
	16QAM	1	0	20.73	20.76	20.76	21.00

		1	25	20.85	20.82	20.79	21.00
		1	49	20.82	20.78	20.81	21.00
		25	0	20.47	20.39	20.42	21.00
		25	13	20.48	20.44	20.49	21.00
		25	25	20.51	20.46	20.36	21.00
		50	0	20.47	20.43	20.42	21.00
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up
				26765/821.5	26865/831.5	26965/841.5	
15MHz	QPSK	1	0	20.35	20.32	20.30	21.00
		1	38	**20.39**	**20.37**	**20.38**	21.00
		1	74	20.38	20.35	**20.38**	21.00
		36	0	20.39	20.38	**20.49**	21.00
		36	18	**20.50**	**20.45**	20.44	21.00
		36	39	20.45	20.38	20.36	21.00
		75	0	**20.42**	20.36	20.39	21.00
	16QAM	1	0	20.71	20.62	20.60	21.00
		1	38	20.79	20.72	20.69	21.00
		1	74	20.77	20.74	20.70	21.00
		36	0	20.44	20.38	20.49	21.00
		36	18	20.49	20.44	20.44	21.00
		36	39	20.49	20.43	20.39	21.00
		75	0	20.47	20.39	20.43	21.00

LTE B30							
Pmax&Sensor off				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			
				27685/2307.5	27710/2310	27735/2312.5	
5MHz	QPSK	1	0	22.37	22.42	22.43	24.00
		1	13	22.54	22.54	22.55	24.00
		1	24	22.38	22.41	22.42	24.00
		12	0	21.62	21.61	21.63	23.00
		12	6	21.66	21.69	21.66	23.00
		12	13	21.58	21.65	21.63	23.00
		25	0	21.64	21.66	21.64	23.00
	16QAM	1	0	21.63	21.78	21.81	23.00
		1	13	21.80	21.89	21.88	23.00
		1	24	21.70	21.73	21.74	23.00
		12	0	20.60	20.58	20.58	22.00
		12	6	20.61	20.63	20.63	22.00
		12	13	20.56	20.60	20.60	22.00
		25	0	20.61	20.60	20.61	22.00

Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up
				/	27710/2310	/	
10MHz	QPSK	1	0	/	22.51	/	24.00
		1	25	/	**22.64**	/	24.00
		1	49	/	22.48	/	24.00
		25	0	/	**21.72**	/	23.00
		25	13	/	21.68	/	23.00
		25	25	/	21.71	/	23.00
		50	0	/	**21.73**	/	23.00
	16QAM	1	0	/	21.80	/	23.00
		1	25	/	21.95	/	23.00
		1	49	/	21.79	/	23.00
		25	0	/	20.72	/	22.00
		25	13	/	20.66	/	22.00
		25	25	/	20.67	/	22.00
		50	0	/	20.73	/	22.00

LTE B30							
Sensor on				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			
				27685/2307.5	27710/2310	27735/2312.5	
5MHz	QPSK	1	0	12.75	12.70	12.65	14.00
		1	13	12.83	12.86	12.91	14.00
		1	24	12.72	12.71	12.73	14.00
		12	0	12.88	12.90	12.89	14.00
		12	6	12.91	12.94	12.92	14.00
		12	13	12.83	12.85	12.86	14.00
		25	0	12.85	12.87	12.89	14.00
	16QAM	1	0	13.05	13.12	13.06	14.00
		1	13	13.22	13.26	13.19	14.00
		1	24	13.06	13.10	13.04	14.00
		12	0	12.91	12.92	12.94	14.00
		12	6	12.94	12.95	12.95	14.00
		12	13	12.89	12.91	12.94	14.00
		25	0	12.90	12.90	12.93	14.00
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up
				/	27710/2310	/	
10MHz	QPSK	1	0	/	12.86	/	14.00
		1	25	/	**12.95**	/	14.00
		1	49	/	12.84	/	14.00
		25	0	/	12.95	/	14.00
		25	13	/	**12.96**	/	14.00
		25	25	/	12.90	/	14.00

		50	0	/	**12.93**	/	14.00
	16QAM	1	0	/	13.24	/	14.00
		1	25	/	13.33	/	14.00
		1	49	/	13.28	/	14.00
		25	0	/	13.01	/	14.00
		25	13	/	12.98	/	14.00
		25	25	/	12.95	/	14.00
		50	0	/	12.96	/	14.00

LTE B41									
Pmax&Sensor off				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	22.92	22.94	23.03	23.05	23.12	24.00
		1	13	23.06	23.08	23.14	23.19	23.27	24.00
		1	24	22.92	22.98	23.00	23.04	23.13	24.00
		12	0	22.05	22.08	22.14	22.18	22.28	23.00
		12	6	22.14	22.16	22.18	22.23	22.34	23.00
		12	13	22.09	22.14	22.17	22.18	22.26	23.00
		25	0	22.08	22.09	22.09	22.14	22.28	23.00
	16QAM	1	0	22.01	22.01	22.06	22.11	22.17	23.00
		1	13	22.13	22.11	22.16	22.22	22.34	23.00
		1	24	22.02	21.98	22.05	22.10	22.26	23.00
		12	0	20.99	21.04	21.09	21.16	21.26	22.00
		12	6	21.06	21.09	21.17	21.21	21.31	22.00
		12	13	21.00	21.07	21.08	21.14	21.24	22.00
		25	0	21.04	21.11	21.12	21.18	21.36	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	22.95	23.06	23.10	23.20	23.22	24.00
		1	25	22.87	22.99	23.03	23.13	23.14	24.00
		1	49	22.95	23.09	23.11	23.19	23.25	24.00
		25	0	22.01	22.09	22.17	22.22	22.36	23.00
		25	13	22.00	22.10	22.13	22.19	22.27	23.00
		25	25	22.05	22.10	22.11	22.20	22.24	23.00
		50	0	21.92	21.99	22.06	22.15	22.27	23.00
	16QAM	1	0	22.00	22.11	22.14	22.23	22.33	23.00
		1	25	21.94	22.01	22.02	22.09	22.22	23.00
		1	49	22.02	22.12	22.15	22.21	22.33	23.00
		25	0	21.04	21.15	21.22	21.26	21.40	22.00
		25	13	21.02	21.10	21.16	21.25	21.39	22.00

		25	25	21.02	21.13	21.18	21.28	21.28	22.00
		50	0	20.92	21.05	21.08	21.17	21.32	22.00
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz) 39725/ 2503.5	40173/ 2548.3	40620/ 2593	41068/ 2637.8	41515/ 2682.5	Tune-up
15MHz	QPSK	1	0	22.88	23.00	23.01	23.08	23.13	24.00
		1	38	22.96	23.08	23.12	23.16	23.18	24.00
		1	74	22.91	22.99	23.03	23.09	23.12	24.00
		36	0	22.03	22.15	22.15	22.24	22.29	23.00
		36	18	22.08	22.10	22.18	22.24	22.30	23.00
		36	39	22.01	22.07	22.16	22.24	22.20	23.00
		75	0	21.97	22.03	22.08	22.16	22.16	23.00
	16QAM	1	0	21.93	22.03	22.06	22.14	22.21	23.00
		1	38	22.03	22.09	22.14	22.18	22.23	23.00
		1	74	22.01	22.06	22.04	22.12	22.14	23.00
		36	0	20.90	21.02	21.06	21.15	21.23	22.00
		36	18	20.94	21.05	21.13	21.18	21.29	22.00
		36	39	20.95	21.04	21.04	21.13	21.18	22.00
		75	0	20.95	20.96	21.05	21.10	21.22	22.00
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz) 39750/ 2506	40185/ 2549.5	40620/ 2593	41055/ 2636.5	41490/ 2680	Tune-up
20MHz	QPSK	1	0	22.85	22.94	22.99	23.05	23.12	24.00
		1	50	**22.99**	**23.10**	**23.15**	**23.22**	**23.27**	24.00
		1	99	22.88	23.00	22.97	23.00	23.10	24.00
		50	0	21.87	**21.99**	**22.02**	22.10	22.15	23.00
		50	25	21.89	**21.99**	22.00	**22.12**	**22.21**	23.00
		50	50	**21.94**	21.97	21.99	22.10	22.03	23.00
		100	0	21.98	22.07	22.09	**22.18**	**22.12**	23.00
	16QAM	1	0	21.92	21.99	22.03	22.09	22.17	23.00
		1	50	22.10	22.16	22.18	22.25	22.39	23.00
		1	99	21.94	22.02	22.00	22.05	22.21	23.00
		50	0	20.82	21.00	21.05	21.11	21.18	22.00
		50	25	20.93	21.06	21.04	21.14	21.24	22.00
		50	50	20.94	20.99	21.06	21.11	21.16	22.00
		100	0	20.97	21.04	21.10	21.17	21.16	22.00

LTE B41									
Sensor on				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	12.96	13.46	13.44	13.41	13.43	14.00
		1	13	13.29	13.30	13.31	13.16	13.32	14.00
		1	24	13.21	13.17	13.12	13.07	13.13	14.00
		12	0	13.32	13.29	13.26	13.16	13.25	14.00
		12	6	13.50	13.35	13.27	13.22	13.35	14.00
		12	13	13.31	13.29	13.24	13.18	13.21	14.00
		25	0	13.29	13.34	13.23	13.21	13.32	14.00
	16QAM	1	0	13.33	13.30	13.28	13.18	13.25	14.00
		1	13	13.42	13.46	13.38	13.34	13.40	14.00
		1	24	13.30	13.30	13.26	13.14	13.28	14.00
		12	0	13.29	13.31	13.21	13.15	13.22	14.00
		12	6	13.36	13.31	13.26	13.20	13.30	14.00
		12	13	13.32	13.32	13.23	13.12	13.20	14.00
		25	0	13.36	13.41	13.31	13.21	13.31	14.00
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)					Tune-up
				39700/ 2501	40160/ 2547	40620/ 2593	41080/ 2639	41540/ 2685	
10MHz	QPSK	1	0	12.89	13.58	13.50	13.44	13.57	14.00
		1	25	13.25	13.22	13.17	13.12	13.19	14.00
		1	49	13.30	13.32	13.22	13.19	13.28	14.00
		25	0	13.33	13.40	13.30	13.22	13.41	14.00
		25	13	13.30	13.31	13.25	13.17	13.28	14.00
		25	25	13.38	13.32	13.28	13.16	13.23	14.00
		50	0	13.42	13.40	13.34	13.32	13.27	14.00
	16QAM	1	0	13.46	13.42	13.34	13.32	13.35	14.00
		1	25	13.38	13.36	13.28	13.22	13.28	14.00
		1	49	13.46	13.43	13.41	13.31	13.38	14.00
		25	0	13.41	13.42	13.38	13.26	13.44	14.00
		25	13	13.43	13.36	13.37	13.25	13.32	14.00
		25	25	13.42	13.40	13.31	13.24	13.27	14.00
		50	0	13.49	13.52	13.40	13.33	13.36	14.00
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	12.87	13.40	13.35	13.30	13.42	14.00
		1	38	13.29	13.28	13.19	13.19	13.21	14.00
		1	74	13.27	13.23	13.18	13.09	13.20	14.00

		36	0	13.27	13.38	13.26	13.22	13.24	14.00
		36	18	13.43	13.37	13.23	13.26	13.27	14.00
		36	39	13.32	13.24	13.27	13.17	13.19	14.00
		75	0	13.37	13.40	13.30	13.19	13.21	14.00
	16QAM	1	0	13.42	13.42	13.31	13.20	13.21	14.00
		1	38	13.41	13.42	13.34	13.28	13.28	14.00
		1	74	13.42	13.33	13.30	13.18	13.26	14.00
		36	0	13.27	13.26	13.17	13.13	13.18	14.00
		36	18	13.30	13.25	13.20	13.20	13.23	14.00
		36	39	13.33	13.25	13.21	13.13	13.15	14.00
		75	0	13.45	13.41	13.31	13.21	13.24	14.00
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	12.83	13.35	**13.40**	**13.34**	**13.41**	14.00
		1	50	**13.36**	**13.39**	13.37	13.26	13.30	14.00
		1	99	13.24	13.21	13.07	13.04	13.15	14.00
		50	0	**13.38**	**13.39**	**13.32**	**13.26**	13.18	14.00
		50	25	13.35	13.31	13.28	13.24	**13.40**	14.00
		50	50	**13.38**	13.35	13.30	13.22	13.23	14.00
		100	0	**13.37**	13.30	13.17	13.24	**13.21**	14.00
	16QAM	1	0	13.35	13.32	13.24	13.23	13.21	14.00
		1	50	13.55	13.53	13.44	13.38	13.37	14.00
		1	99	13.33	13.31	13.21	13.18	13.22	14.00
		50	0	13.44	13.47	13.41	13.31	13.24	14.00
		50	25	13.50	13.43	13.38	13.28	13.24	14.00
		50	50	13.50	13.42	13.35	13.28	13.19	14.00
		100	0	13.38	13.43	13.24	13.21	13.24	14.00

LTE B66							
Pmax&Sensor off				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			
				131979/1710.7	132322/1745	132665/1779.3	
1.4MHz	QPSK	1	0	22.94	22.94	22.93	24.00
		1	2	23.05	23.08	23.09	24.00
		1	5	22.95	22.95	22.94	24.00
		3	0	23.04	23.04	23.03	24.00
		3	2	23.06	23.08	23.07	24.00
		3	3	23.03	23.01	23.02	24.00
		6	0	22.11	22.10	22.05	23.00
	16QAM	1	0	22.35	22.42	22.31	23.00
		1	2	22.48	22.56	22.43	23.00
		1	5	22.32	22.41	22.33	23.00

		3	0	22.10	22.11	22.05	23.00
		3	2	22.13	22.12	22.15	23.00
		3	3	22.11	22.09	22.11	23.00
		6	0	21.21	21.22	21.24	22.00
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up
				131987/1711.5	132322/1745	132657/1778.5	
3MHz	QPSK	1	0	23.02	23.05	22.99	24.00
		1	7	23.05	23.05	23.04	24.00
		1	14	23.02	23.03	22.98	24.00
		8	0	22.09	22.09	22.03	23.00
		8	4	22.14	22.12	22.05	23.00
		8	7	22.08	22.10	22.01	23.00
		15	0	22.09	22.09	22.02	23.00
	16QAM	1	0	22.41	22.50	22.35	23.00
		1	7	22.43	22.44	22.40	23.00
		1	14	22.46	22.38	22.39	23.00
		8	0	21.21	21.22	21.25	22.00
		8	4	21.22	21.23	21.25	22.00
		8	7	21.19	21.22	21.20	22.00
		15	0	21.16	21.11	21.13	22.00
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up
				131997/1712.5	132322/1745	132647/1777.5	
5MHz	QPSK	1	0	22.94	22.94	22.87	24.00
		1	13	23.08	23.08	23.04	24.00
		1	24	22.96	22.87	22.87	24.00
		12	0	22.14	22.10	22.07	23.00
		12	6	22.16	22.15	22.11	23.00
		12	13	22.11	22.06	22.02	23.00
		25	0	22.15	22.11	22.02	23.00
	16QAM	1	0	22.26	22.31	22.26	23.00
		1	13	22.44	22.45	22.37	23.00
		1	24	22.28	22.27	22.25	23.00
		12	0	21.18	21.13	21.12	22.00
		12	6	21.20	21.20	21.19	22.00
		12	13	21.19	21.08	21.10	22.00
		25	0	21.15	21.15	21.09	22.00
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up
				132022/1715	132322/1745	132622/1775	
10MHz	QPSK	1	0	23.06	23.12	23.05	24.00
		1	25	23.16	23.17	23.05	24.00
		1	49	23.05	22.98	22.96	24.00
		25	0	22.17	22.16	22.06	23.00
		25	13	22.17	22.15	22.09	23.00

		25	25	22.13	22.06	22.10	23.00
		50	0	22.16	22.12	22.04	23.00
	16QAM	1	0	22.38	22.47	22.45	23.00
		1	25	22.48	22.49	22.45	23.00
		1	49	22.42	22.30	22.31	23.00
		25	0	21.24	21.19	21.13	22.00
		25	13	21.23	21.17	21.15	22.00
		25	25	21.19	21.14	21.13	22.00
		50	0	21.18	21.21	21.15	22.00
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up
				132047/1717.5	132322/1745	132597/1772.5	
15MHz	QPSK	1	0	23.01	23.08	23.10	24.00
		1	38	23.05	23.04	23.07	24.00
		1	74	22.96	22.96	22.94	24.00
		36	0	22.20	22.15	22.08	23.00
		36	18	22.15	22.11	22.11	23.00
		36	39	22.15	22.07	22.08	23.00
		75	0	22.11	22.10	22.06	23.00
	16QAM	1	0	22.44	22.53	22.44	23.00
		1	38	22.49	22.48	22.39	23.00
		1	74	22.42	22.33	22.31	23.00
		36	0	21.18	21.19	21.16	22.00
		36	18	21.17	21.18	21.16	22.00
		36	39	21.15	21.12	21.16	22.00
		75	0	21.16	21.21	21.18	22.00
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up
				132072/1720	132322/1745	132572/1770	
20MHz	QPSK	1	0	22.99	22.98	23.00	24.00
		1	50	**23.15**	**23.08**	**23.14**	24.00
		1	99	22.94	22.84	22.89	24.00
		50	0	**22.21**	**22.14**	**22.13**	23.00
		50	25	22.17	22.11	22.12	23.00
		50	50	22.13	21.97	22.03	23.00
		100	0	**22.15**	22.09	22.10	23.00
	16QAM	1	0	22.38	22.37	22.40	23.00
		1	50	22.58	22.57	22.50	23.00
		1	99	22.32	22.19	22.24	23.00
		50	0	21.27	21.19	21.22	22.00
		50	25	21.21	21.18	21.21	22.00
		50	50	21.17	21.08	21.14	22.00
		100	0	21.18	21.12	21.18	22.00

LTE B66							
Sensor on				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			
				131979/1710.7	132322/1745	132665/1779.3	
1.4MHz	QPSK	1	0	13.28	13.40	13.38	14.00
		1	2	13.44	13.42	13.35	14.00
		1	5	13.31	13.31	13.21	14.00
		3	0	13.41	13.41	13.33	14.00
		3	2	13.40	13.44	13.33	14.00
		3	3	13.40	13.42	13.30	14.00
		6	0	13.36	13.41	13.30	14.00
	16QAM	1	0	13.61	13.66	13.54	14.00
		1	2	13.73	13.80	13.72	14.00
		1	5	13.59	13.70	13.52	14.00
		3	0	13.36	13.39	13.39	14.00
		3	2	13.43	13.42	13.44	14.00
		3	3	13.40	13.45	13.40	14.00
		6	0	13.48	13.52	13.40	14.00
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up
				131987/1711.5	132322/1745	132657/1778.5	
3MHz	QPSK	1	0	12.89	13.62	13.52	14.00
		1	7	13.39	13.43	13.28	14.00
		1	14	13.39	13.38	13.24	14.00
		8	0	13.41	13.42	13.30	14.00
		8	4	13.42	13.44	13.35	14.00
		8	7	13.38	13.40	13.26	14.00
		15	0	13.37	13.36	13.25	14.00
	16QAM	1	0	13.64	13.79	13.64	14.00
		1	7	13.69	13.78	13.63	14.00
		1	14	13.70	13.77	13.61	14.00
		8	0	13.48	13.47	13.43	14.00
		8	4	13.50	13.55	13.42	14.00
		8	7	13.46	13.48	13.38	14.00
		15	0	13.41	13.43	13.29	14.00
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up
				131997/1712.5	132322/1745	132647/1777.5	
5MHz	QPSK	1	0	12.92	13.68	13.42	14.00
		1	13	13.44	13.41	13.26	14.00
		1	24	13.27	13.23	13.13	14.00
		12	0	13.40	13.41	13.29	14.00
		12	6	13.46	13.41	13.38	14.00
		12	13	13.43	13.36	13.23	14.00

		25	0	13.36	13.37	13.27	14.00
	16QAM	1	0	13.64	13.69	13.49	14.00
		1	13	13.81	13.79	13.67	14.00
		1	24	13.61	13.66	13.55	14.00
		12	0	13.43	13.44	13.31	14.00
		12	6	13.45	13.48	13.40	14.00
		12	13	13.42	13.41	13.29	14.00
		25	0	13.41	13.42	13.30	14.00
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up
				132022/1715	132322/1745	132622/1775	
10MHz	QPSK	1	0	13.05	13.65	13.76	14.00
		1	25	13.54	13.51	13.37	14.00
		1	49	13.38	13.31	13.24	14.00
		25	0	13.43	13.47	13.33	14.00
		25	13	13.45	13.42	13.35	14.00
		25	25	13.42	13.35	13.31	14.00
		50	0	13.43	13.40	13.28	14.00
	16QAM	1	0	13.78	13.78	13.73	14.00
		1	25	13.89	13.86	13.70	14.00
		1	49	13.72	13.61	13.61	14.00
		25	0	13.47	13.51	13.34	14.00
		25	13	13.49	13.46	13.36	14.00
		25	25	13.48	13.37	13.30	14.00
		50	0	13.45	13.43	13.33	14.00
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up
				132047/1717.5	132322/1745	132597/1772.5	
15MHz	QPSK	1	0	13.03	13.81	13.76	14.00
		1	38	13.48	13.43	13.33	14.00
		1	74	13.36	13.24	13.21	14.00
		36	0	13.47	13.49	13.34	14.00
		36	18	13.46	13.39	13.35	14.00
		36	39	13.43	13.37	13.28	14.00
		75	0	13.42	13.36	13.32	14.00
	16QAM	1	0	13.70	13.80	13.68	14.00
		1	38	13.74	13.77	13.63	14.00
		1	74	13.66	13.54	13.53	14.00
		36	0	13.43	13.46	13.34	14.00
		36	18	13.44	13.40	13.36	14.00
		36	39	13.44	13.35	13.28	14.00
		75	0	13.41	13.39	13.34	14.00
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up
				132072/1720	132322/1745	132572/1770	
20MHz	QPSK	1	0	13.12	**13.50**	**13.48**	14.00

		1	50	**13.52**	13.49	13.44	14.00
		1	99	13.29	13.16	13.16	14.00
		50	0	**13.44**	**13.40**	**13.37**	14.00
		50	25	13.43	13.35	13.35	14.00
		50	50	13.36	13.25	13.25	14.00
		100	0	**13.41**	13.36	13.33	14.00
	16QAM	1	0	13.73	13.74	13.64	14.00
		1	50	13.92	13.89	13.80	14.00
		1	99	13.70	13.53	13.50	14.00
		50	0	13.47	13.50	13.41	14.00
		50	25	13.44	13.40	13.38	14.00
		50	50	13.41	13.30	13.29	14.00
		100	0	13.39	13.39	13.35	14.00

LTE B66							
Pmax&Sensor off&Sensor on				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			
				133147/665.5	133297/680.5	133447/695.5	
5MHz	QPSK	1	0	23.08	22.99	22.78	24.00
		1	13	23.25	23.22	23.43	24.00
		1	24	23.18	22.86	22.98	24.00
		12	0	22.20	22.13	22.15	23.00
		12	6	21.91	22.19	22.13	23.00
		12	13	21.98	22.25	22.04	23.00
		25	0	22.18	22.11	22.43	23.00
	16QAM	1	0	22.49	21.87	22.56	23.00
		1	13	22.61	22.20	22.66	23.00
		1	24	22.37	22.35	22.43	23.00
		12	0	21.22	21.39	21.04	22.00
		12	6	21.11	21.20	21.27	22.00
		12	13	21.12	21.17	21.04	22.00
		25	0	21.28	21.28	21.15	22.00
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up
				133172/668	133297/680.5	133422/693	
10MHz	QPSK	1	0	23.14	23.17	23.08	24.00
		1	25	23.37	23.20	23.35	24.00
		1	49	23.30	23.18	23.30	24.00
		25	0	22.30	22.19	22.41	23.00
		25	13	22.11	22.23	22.29	23.00
		25	25	22.14	22.29	21.96	23.00
		50	0	22.38	22.15	22.73	23.00
	16QAM	1	0	22.61	21.89	22.72	23.00
		1	25	22.51	22.46	22.62	23.00

		1	49	22.27	22.19	22.51	23.00
		25	0	21.26	21.27	21.28	22.00
		25	13	21.07	21.32	21.19	22.00
		25	25	21.24	21.13	20.90	22.00
		50	0	21.36	21.10	21.29	22.00
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up
				133197/670.5	133297/680.5	133397/690.5	
15MHz	QPSK	1	0	23.30	23.35	23.12	24.00
		1	38	23.53	23.18	23.31	24.00
		1	74	23.24	23.02	23.26	24.00
		36	0	22.32	22.35	22.19	23.00
		36	18	22.21	22.05	22.07	23.00
		36	39	22.08	22.07	22.32	23.00
		75	0	22.30	22.23	22.77	23.00
	16QAM	1	0	22.45	22.33	22.52	23.00
		1	38	22.51	22.30	22.38	23.00
		1	74	22.63	22.29	22.55	23.00
		36	0	21.34	21.21	21.36	22.00
		36	18	21.15	21.36	21.23	22.00
		36	39	21.24	21.03	21.26	22.00
		75	0	21.26	21.46	21.15	22.00
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up
				133222/673	133322/683	133372/688	
20MHz	QPSK	1	0	23.18	23.21	23.08	24.00
		1	50	**23.37**	**23.22**	**23.33**	24.00
		1	99	23.16	23.04	23.14	24.00
		50	0	**22.20**	**22.17**	**22.23**	23.00
		50	25	22.15	22.15	22.19	23.00
		50	50	22.18	22.11	22.18	23.00
		100	0	22.16	22.27	**22.67**	23.00
	16QAM	1	0	22.45	22.17	22.52	23.00
		1	50	22.61	22.24	22.46	23.00
		1	99	22.49	22.15	22.39	23.00
		50	0	21.28	21.27	21.24	22.00
		50	25	21.19	21.28	21.15	22.00
		50	50	21.28	21.15	21.18	22.00
		100	0	21.32	21.32	21.19	22.00

LTE B66							
Pmax&Sensor off&Sensor on				Maximum Output Power (dBm)			Tune-up
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			
				133147/665.5	133297/680.5	133447/695.5	
5MHz	QPSK	1	0	19.75	19.55	20.02	20.50
		1	13	19.83	19.70	20.06	20.50
		1	24	19.71	19.69	19.63	20.50
		12	0	19.86	19.81	20.00	20.50
		12	6	19.57	19.88	19.81	20.50
		12	13	19.90	19.81	19.82	20.50
		25	0	19.78	19.80	19.79	20.50
	16QAM	1	0	20.05	19.53	19.60	20.50
		1	13	19.95	19.50	19.68	20.50
		1	24	20.01	19.61	19.75	20.50
		12	0	19.66	20.09	19.90	20.50
		12	6	19.65	19.84	19.53	20.50
		12	13	19.78	19.77	19.90	20.50
		25	0	19.88	19.90	19.69	20.50
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up
				133172/668	133297/680.5	133422/693	
10MHz	QPSK	1	0	19.61	19.51	20.08	20.50
		1	25	19.71	19.52	20.08	20.50
		1	49	19.83	19.77	19.65	20.50
		25	0	19.80	19.71	20.08	20.50
		25	13	19.49	19.70	19.59	20.50
		25	25	19.84	19.57	19.72	20.50
		50	0	19.86	19.62	19.73	20.50
	16QAM	1	0	19.73	19.39	19.84	20.50
		1	25	19.79	19.64	19.80	20.50
		1	49	20.07	19.63	19.91	20.50
		25	0	19.44	20.03	19.78	20.50
		25	13	19.93	19.72	19.79	20.50
		25	25	19.68	20.03	19.60	20.50
		50	0	19.90	19.92	19.45	20.50
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up
				133197/670.5	133297/680.5	133397/690.5	
15MHz	QPSK	1	0	19.65	19.75	20.00	20.50
		1	38	19.93	19.54	19.96	20.50
		1	74	19.73	19.67	19.45	20.50
		36	0	19.64	19.69	19.94	20.50
		36	18	19.67	19.76	19.77	20.50
		36	39	19.88	19.83	19.90	20.50

		75	0	19.62	19.92	19.91	20.50
	16QAM	1	0	19.87	19.41	19.56	20.50
		1	38	19.87	19.58	19.72	20.50
		1	74	19.85	19.55	19.63	20.50
		36	0	19.74	20.09	19.86	20.50
		36	18	19.71	19.80	19.69	20.50
		36	39	19.74	19.73	19.80	20.50
		75	0	19.78	19.96	19.81	20.50
Bandwidth	Modulation	RB Allocation	Offset	Channel/Frequency(MHz)			Tune-up
				133222/673	133322/683	133372/688	
20MHz	QPSK	1	0	19.71	19.57	19.90	20.50
		1	50	**19.83**	**19.62**	**19.90**	20.50
		1	99	19.71	19.57	19.57	20.50
		50	0	19.76	19.69	**19.90**	20.50
		50	25	19.61	**19.76**	19.77	20.50
		50	50	**19.80**	19.69	19.78	20.50
		100	0	19.70	**19.78**	19.73	20.50
	16QAM	1	0	19.89	19.49	19.66	20.50
		1	50	19.95	19.60	19.64	20.50
		1	99	19.91	19.65	19.73	20.50
		50	0	19.60	19.93	19.90	20.50
		50	25	19.73	19.70	19.59	20.50
		50	50	19.84	19.81	19.76	20.50
		100	0	19.76	19.96	19.63	20.50

9.4 WLAN Mode

Wi-Fi 2.4GHz Pmax&Sensor off Mode	Channel /Frequency(MHz)	Maximum Output Power (dBm)	
		Tune-up	Meas.
802.11b (1M)	1/2412	16.5	16.08
	6/2437	16.5	16.07
	11/2462	16.5	**16.28**
802.11g (6M)	1/2412	18.5	18.01
	6/2437	18.5	17.83
	11/2462	17.5	17.16
802.11n-HT20 (MCS0)	1/2412	17.5	16.82
	6/2437	18.5	17.91
	11/2462	16.5	16.05
802.11n-HT40 (MCS0)	3/2422	18.5	15.63
	6/2437	18.5	18.09
	9/2452	17.5	13.72
Note: Initial test configuration is 802.11b mode.			

Wi-Fi 2.4GHz Sensor on Mode	Channel /Frequency(MHz)	Maximum Output Power (dBm)	
		Tune-up	Meas.
802.11b (1M)	1/2412	12.50	11.86
	6/2437	12.50	11.54
	11/2462	12.50	**11.94**
802.11g (6M)	1/2412	12.50	11.41
	6/2437	12.50	11.51
	11/2462	12.50	11.56
802.11n-HT20 (MCS0)	1/2412	12.50	11.38
	6/2437	12.50	11.40
	11/2462	12.50	11.65
802.11n-HT40 (MCS0)	3/2422	12.50	11.58
	6/2437	12.50	11.22
	9/2452	12.50	11.69
Note: Initial test configuration is 802.11b mode.			

5GHz Wi-Fi U-NII-1 Pmax&Sensor off	Channel /Freq.(MHz)	Maximum Output Power (dBm)	
		Tune-up	Meas.
802.11a (6M)	36/5180	18.5	17.55
	40/5200	18.5	17.59
	48/5240	18.5	17.67
802.11n HT20 (MCS0)	36/5180	18.5	17.76
	40/5200	18.5	17.74
	48/5240	18.5	17.85
802.11n HT40 (MCS0)	38/5190	17	15.81
	46/5230	17	15.80
802.11ac VHT20 (MCS0)	36/5180	17	15.90
	40/5200	17	15.70
	48/5240	17	15.94
802.11ac VHT40 (MCS0)	38/5190	17	16.74
	46/5230	17	16.50
802.11ac VHT80 (MCS0)	42/5210	17	15.82

5GHz Wi-Fi U-NII-1 Sensor on	Channel /Freq.(MHz)	Maximum Output Power (dBm)	
		Tune-up	Meas.
802.11a (6M)	36/5180	11.5	10.36
	40/5200	11.5	10.67
	48/5240	11.5	10.54
802.11n HT20 (MCS0)	36/5180	11	10.84
	40/5200	11	10.52
	48/5240	11	10.56
802.11n HT40 (MCS0)	38/5190	11	10.37
	46/5230	11	10.54
802.11ac VHT20 (MCS0)	36/5180	11	10.22
	40/5200	11	10.29
	48/5240	11	10.39
802.11ac VHT40 (MCS0)	38/5190	11	10.24
	46/5230	11	10.54
802.11ac VHT80 (MCS0)	42/5210	11	10.73

5GHz Wi-Fi U-NII-2A Pmax&Sensor off	Channel /Freq.(MHz)	Maximum Output Power (dBm)	
		Tune-up	Meas.
802.11a (6M)	52/5260	18.5	17.79
	56/5280	18.5	17.65
	64/5320	18.5	**17.86**
802.11n HT20 (MCS0)	52/5260	18.5	17.83
	56/5280	18.5	17.53
	64/5320	18.5	17.80
802.11n HT40 (MCS0)	54/5270	17	15.62
	62/5310	17	15.93
802.11ac VHT20 (MCS0)	52/5260	17	15.76
	56/5280	17	15.52
	64/5320	17	16.02
802.11ac VHT40 (MCS0)	54/5270	17	16.08
	62/5310	17	16.94
802.11ac VHT80 (MCS0)	58/5290	15	13.74
Note. Initial test configuration is 802.11a mode.			

5GHz Wi-Fi U-NII-2A Sensor on	Channel /Freq.(MHz)	Maximum Output Power (dBm)	
		Tune-up	Meas.
802.11a (6M)	52/5260	11.5	**10.33**
	56/5280	11.5	10.19
	64/5320	11.5	10.16
802.11n HT20 (MCS0)	52/5260	11	10.88
	56/5280	11	10.37
	64/5320	11	10.40
802.11n HT40 (MCS0)	54/5270	11	10.49
	62/5310	11	10.79
802.11ac VHT20 (MCS0)	52/5260	11	10.28
	56/5280	11	10.37
	64/5320	11	10.54
802.11ac VHT40 (MCS0)	54/5270	11	10.58
	62/5310	11	10.54
802.11ac VHT80 (MCS0)	58/5290	11	10.07
Note. Initial test configuration is 802.11a mode.			

5GHz Wi-Fi U-NII-2C Pmax&Sensor off	Channel /Freq.(MHz)	Maximum Output Power (dBm)	
		Tune-up	Meas.
802.11a (6M)	100/5500	17.5	15.67
	116/5580	17.5	15.64
	140/5700	17.5	15.71
	144/5720	17.5	15.66
802.11n HT20 (MCS0)	100/5500	18.5	**18.33**
	116/5580	18.5	18.28
	140/5700	18.5	18.27
	144/5720	18.5	18.04
802.11n HT40 (MCS0)	102/5510	17	16.18
	110/5550	17	16.29
	134/5670	17	16.18
	142/5710	17	15.82
802.11ac-VHT20 (MCS0)	100/5500	17	15.60
	116/5580	17	15.83
	140/5700	17	15.54
	144/5720	17	15.99
802.11ac-VHT40 (MCS0)	102/5510	16	14.43
	110/5550	18	17.28
	134/5670	18	16.99
	142/5710	18	16.88
802.11ac-VHT80 (MCS0)	106/5530	15	14.21
	122/5610	17	16.37
Note. Initial test configuration is 802.11n HT20 mode.			

5GHz Wi-Fi U-NII-2C Sensor on	Channel /Freq.(MHz)	Maximum Output Power (dBm)	
		Tune-up	Meas.
802.11a (6M)	100/5500	11.5	10.13
	116/5580	11.5	10.23
	140/5700	11.5	**10.65**
	144/5720	11.5	10.43
802.11n HT20 (MCS0)	100/5500	11	10.32
	116/5580	11	10.70
	140/5700	11	10.52
	144/5720	11	10.41
802.11n HT40 (MCS0)	102/5510	11	10.24
	110/5550	11	10.02
	134/5670	11	10.43
	142/5710	11	10.51
802.11ac-VHT20 (MCS0)	100/5500	11	10.74
	116/5580	11	10.69
	140/5700	11	10.48
	144/5720	11	10.58
802.11ac-VHT40 (MCS0)	102/5510	11	10.44
	110/5550	11	10.35
	134/5670	11	10.06
	142/5710	11	10.52
802.11ac-VHT80 (MCS0)	106/5530	11	10.76
	122/5610	11	10.70
Note. Initial test configuration is 802.11a mode.			

5GHz Wi-Fi U-NII-3 Pmax&Sensor off	Channel /Freq.(MHz)	Maximum Output Power (dBm)	
		Tune-up	Meas.
802.11a(6M)	149/5745	18.5	**18.38**
	157/5785	18.5	18.27
	165/5825	18.5	18.03
802.11n HT20(MCS0)	149/5745	18.5	18.09
	157/5785	18.5	18.07
	165/5825	18.5	17.88
802.11n HT40(MCS0)	151/5755	17	16.27
	159/5795	17	16.14
802.11ac VHT20 (MCS0)	149/5745	17	16.10
	157/5785	17	16.15
	165/5825	17	15.98
802.11ac VHT40 (MCS0)	151/5755	18	17.28
	159/5795	18	17.11
802.11ac VHT80 (MCS0)	155/5775	17	16.22
Note. Initial test configuration is 802.11a mode.			

5GHz Wi-Fi U-NII-3 Sensor on	Channel /Freq.(MHz)	Maximum Output Power (dBm)	
		Tune-up	Meas.
802.11a(6M)	149/5745	11.5	**10.93**
	157/5785	11.5	10.78
	165/5825	11.5	10.49
802.11n HT20 (MCS0)	149/5745	11	10.68
	157/5785	11	10.55
	165/5825	11	10.26
802.11n HT40 (MCS0)	151/5755	11	10.00
	159/5795	11	10.03
802.11ac VHT20 (MCS0)	149/5745	11	10.20
	157/5785	11	10.08
	165/5825	11	10.02
802.11ac VHT40(MCS0)	151/5755	11	10.60
	159/5795	11	10.19
802.11ac VHT80 (MCS0)	155/5775	11	10.46
Note. Initial test configuration is 802.11a mode.			

9.5 Bluetooth Mode

Bluetooth Pmax&Sensor off	Conducted Power(dBm)			Tune-up Limit (dBm)
	Channel/Frequency(MHz)			
	Ch 0/2402 MHz	Ch 39/2441 MHz	Ch 78/2480 MHz	
GFSK	7.80	8.27	7.82	9.50
π/4DQPSK	5.10	5.41	5.86	9.00
8DPSK	5.16	5.46	5.91	9.00
BLE Pmax&Sensor off	Ch 0/2402 MHz	Ch 19/2440 MHz	Ch 39/2480 MHz	Tune-up Limit (dBm)
GFSK(1M)	-5.24	-4.26	-5.18	-4.00
GFSK(2M)	-7.17	-6.14	-7.09	-4.00

10 Measured and Reported (Scaled) SAR Results

10.1 Measured SAR Results

Note:

1. The value with blue color is the maximum SAR Value of each test band.
2. For GSM, when multiple slots are used, SAR should be tested to account for the maximum source-based time-averaged output power.
3. For WCDMA, When the maximum output power and tune-up tolerance specified for production units in a secondary mode is ≤ ¼ dB higher than the primary mode or when the highest reported SAR of the primary mode is scaled by the ratio of specified maximum output power and tune-up tolerance of secondary to primary mode and the adjusted SAR is ≤ 1.2 W/kg, SAR measurement is not required for the secondary mode.
4. For LTE, QPSK with 100% RB allocation, SAR is required when and the highest reported SAR for 1 RB and 50% RB allocation in are≥ 50% limit(1g).
5. Per FCC KDB 447498 D01, for each exposure position, testing of other requised channels within the operating mode of a frequency band is not required when the reported 1-g or 10-g SAR for the mid-band or highest output power channel is:

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

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

c) ⩽ 0.4 W/kg or 1.0 Wkg, for 1-g or 10-g respectively, when the transmission band is ⩾ 200 MHz. When the original highest measured SAR is ⩾ 0.80 W/kg, the measurement was repeated once.

Band	Antenna	Test Position	Dist. (mm)	Mode	Power Reduction	RB	Offset	Ch./Freq. (MHz)	Tune-up (dBm)	Measured power (dBm)	Measured SAR1g (W/Kg)	Power Drift (dB)	Scaling Factor	Report SAR1g (W/kg)	Plot No.
GSM850	Main	Back Side	0	1TX Slots	Sensor on	N/A	N/A	190/836.6	30.50	29.49	0.613	0.160	1.26	0.774	15
		Front Side	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/
		Left Edge	0	4TX Slots	Sensor off	N/A	N/A	190/836.6	29.00	28.83	0.325	0.012	1.04	0.338	/
		Right Edge	0	1TX Slots	Sensor on	N/A	N/A	190/836.6	30.50	29.49	0.354	0.019	1.26	0.447	/
		Top Edge	0	1TX Slots	Sensor on	N/A	N/A	190/836.6	30.50	29.49	0.323	0.052	1.26	0.408	/
		Bottom Edge	0	4TX Slots	Sensor off	N/A	N/A	190/836.6	29.00	28.83	0.117	0.040	1.04	0.122	/
GSM1900	Main	Back Side	0	2TX Slots	Sensor on	N/A	N/A	661/1880	22.00	20.25	0.458	0.026	1.50	0.685	/
		Front Side	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/
		Left Edge	0	3TX Slots	Sensor off	N/A	N/A	661/1880	27.50	26.93	0.195	-0.090	1.14	0.222	/
		Right Edge	0	2TX Slots	Sensor on	N/A	N/A	661/1880	22.00	20.25	0.295	-0.040	1.50	0.441	/
		Top Edge	0	2TX Slots	Sensor on	N/A	N/A	661/1880	22.00	20.25	0.505	0.080	1.50	0.756	16
		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	/
WCDMA II	Main	Back Side	0	RMC	Sensor on	N/A	N/A	9400/1880	16.00	15.60	0.644	0.023	1.10	0.706	/
		Front Side	0	RMC	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/
		Left Edge	0	RMC	Sensor off	N/A	N/A	9400/1880	24.00	23.47	0.264	0.021	1.13	0.298	/
		Right Edge	0	RMC	Sensor on	N/A	N/A	9400/1880	16.00	15.60	0.268	0.037	1.10	0.294	/
		Top Edge	0	RMC	Sensor on	N/A	N/A	9400/1880	16.00	15.60	0.659	0.060	1.10	0.723	17
		Bottom Edge	0	RMC	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/

WCDMA IV	Main	Back Side	0	RMC	Sensor on	N/A	N/A	1413/1732.6	16.00	15.55	0.668	0.069	1.11	0.741	/
		Front Side	0	RMC	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/
		Left Edge	0	RMC	Sensor off	N/A	N/A	1413/1732.6	24.00	23.25	0.331	0.042	1.19	0.393	/
		Right Edge	0	RMC	Sensor on	N/A	N/A	1413/1732.6	16.00	15.55	0.172	0.036	1.11	0.191	/
		Top Edge	0	RMC	Sensor on	N/A	N/A	1413/1732.6	16.00	15.55	0.763	0.090	1.11	0.846	/
		Top Edge	0	RMC	Sensor on	N/A	N/A	1312/1712.4	16.00	15.45	0.784	0.035	1.14	0.889	18
		Top Edge	0	RMC	Sensor on	N/A	N/A	1513/1752.6	16.00	15.43	0.777	0.012	1.14	0.886	/
		Bottom Edge	0	RMC	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/
WCDMA V	Main	Back Side	0	RMC	Sensor on	N/A	N/A	4183/836.6	21.00	20.04	0.602	0.024	1.25	0.751	/
		Front Side	0	RMC	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/
		Left Edge	0	RMC	Sensor off	N/A	N/A	4183/836.6	24.00	23.66	0.068	0.023	1.08	0.074	/
		Right Edge	0	RMC	Sensor on	N/A	N/A	4183/836.6	21.00	20.04	0.058	0.019	1.25	0.072	/
		Top Edge	0	RMC	Sensor on	N/A	N/A	4183/836.6	21.00	20.04	0.613	-0.150	1.25	0.765	19
		Bottom Edge	0	RMC	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/
LTE 2	Main	Back Side	0	QPSK	Sensor on	1	50	19100/1900	14.00	13.27	0.524	0.079	1.18	0.620	/
			0	QPSK	Sensor on	50%	0	19100/1900	14.00	13.02	0.543	0.018	1.25	0.680	/
		Front Side	0	QPSK	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/
			0	QPSK	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/
		Left Edge	0	QPSK	Sensor off	1	50	19100/1900	24.00	22.83	0.205	0.015	1.31	0.268	/
			0	QPSK	Sensor off	50%	0	19100/1900	23.00	21.87	0.201	0.039	1.30	0.261	/
		Right Edge	0	QPSK	Sensor on	1	50	19100/1900	14.00	13.27	0.219	-0.059	1.18	0.259	/
			0	QPSK	Sensor on	50%	0	19100/1900	14.00	13.02	0.222	0.033	1.25	0.278	/
		Top Edge	0	QPSK	Sensor on	1	50	19100/1900	14.00	13.27	0.517	0.026	1.18	0.612	/
			0	QPSK	Sensor on	50%	0	19100/1900	14.00	13.02	0.569	-0.170	1.25	0.713	20
		Bottom Edge	0	QPSK	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/
			0	QPSK	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/
LTE 5	Main	Back Side	0	QPSK	Sensor on	1	25	20525/836.5	21.00	20.73	0.662	0.031	1.06	0.704	21
			0	QPSK	Sensor on	50%	25	20450/829	21.00	20.78	0.614	0.010	1.05	0.646	/
		Front Side	0	QPSK	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/
			0	QPSK	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/
		Left Edge	0	QPSK	Sensor off	1	25	20525/836.5	24.00	23.34	0.229	0.011	1.16	0.267	/
			0	QPSK	Sensor off	50%	25	20450/829	23.00	22.41	0.189	0.046	1.15	0.217	/
		Right Edge	0	QPSK	Sensor on	1	25	20525/836.5	21.00	20.73	0.324	0.048	1.06	0.345	/
			0	QPSK	Sensor on	50%	25	20450/829	21.00	20.78	0.236	0.025	1.05	0.248	/
		Top Edge	0	QPSK	Sensor on	1	25	20525/836.5	21.00	20.73	0.636	0.019	1.06	0.677	/
			0	QPSK	Sensor on	50%	25	20450/829	21.00	20.78	0.556	-0.013	1.05	0.585	/
		Bottom Edge	0	QPSK	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/
			0	QPSK	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/
LTE 7	Main	Back Side	0	QPSK	Sensor on	1	50	21350/2560	12.00	11.31	0.610	0.018	1.17	0.715	/
			0	QPSK	Sensor on	50%	25	21350/2560	12.00	11.19	0.632	-0.034	1.21	0.762	22
		Front Side	0	QPSK	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/
			0	QPSK	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/
		Left Edge	0	QPSK	Sensor off	1	50	21350/2560	24.00	22.97	0.063	-0.032	1.27	0.080	/

			0	QPSK	Sensor off	50%	50	21350/2560	23.00	22.01	0.050	0.048	1.26	0.063	/
		Right Edge	0	QPSK	Sensor on	1	50	21350/2560	12.00	11.31	0.196	0.016	1.17	0.230	/
			0	QPSK	Sensor on	50%	25	21350/2560	12.00	11.19	0.184	-0.027	1.21	0.222	/
		Top Edge	0	QPSK	Sensor on	1	50	21350/2560	12.00	11.31	0.622	0.030	1.17	0.729	/
			0	QPSK	Sensor on	50%	25	21350/2560	12.00	11.19	0.592	0.070	1.21	0.713	/
		Bottom Edge	0	QPSK	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/
			0	QPSK	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/
LTE 12	Main	Back Side	0	QPSK	Sensor on	1	25	23060/704	20.00	19.69	0.694	0.100	1.07	0.745	/
			0	QPSK	Sensor on	50%	25	23060/704	20.00	19.72	0.742	0.031	1.07	0.791	23
		Front Side	0	QPSK	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/
			0	QPSK	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/
		Left Edge	0	QPSK	Sensor off	1	25	23060/704	24.00	23.32	0.304	0.017	1.17	0.356	/
			0	QPSK	Sensor off	50%	25	23060/704	23.00	22.33	0.244	0.029	1.17	0.285	/
		Right Edge	0	QPSK	Sensor on	1	25	23060/704	20.00	19.69	0.426	0.012	1.07	0.458	/
			0	QPSK	Sensor on	50%	25	23060/704	20.00	19.72	0.407	0.090	1.07	0.434	/
		Top Edge	0	QPSK	Sensor on	1	25	23060/704	20.00	19.69	0.702	0.060	1.07	0.754	/
			0	QPSK	Sensor on	50%	25	23060/704	20.00	19.72	0.582	0.013	1.07	0.621	/
		Bottom Edge	0	QPSK	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/
			0	QPSK	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/
LTE 13	Main	Back Side	0	QPSK	Sensor on	1	25	23230/782	20.00	19.79	0.687	0.047	1.05	0.721	/
			0	QPSK	Sensor on	50%	13	23230/782	20.00	19.73	0.748	0.026	1.06	0.796	24
		Front Side	0	QPSK	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/
			0	QPSK	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/
		Left Edge	0	QPSK	Sensor off	1	25	23230/782	24.00	23.39	0.292	0.060	1.15	0.336	/
			0	QPSK	Sensor off	50%	25	23230/782	23.00	22.44	0.220	0.035	1.14	0.250	/
		Right Edge	0	QPSK	Sensor on	1	25	23230/782	20.00	19.79	0.265	0.030	1.05	0.278	/
			0	QPSK	Sensor on	50%	13	23230/782	20.00	19.73	0.268	0.086	1.06	0.285	/
		Top Edge	0	QPSK	Sensor on	1	25	23230/782	20.00	19.79	0.559	-0.074	1.05	0.587	/
			0	QPSK	Sensor on	50%	13	23230/782	20.00	19.73	0.648	0.018	1.06	0.690	/
		Bottom Edge	0	QPSK	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/
			0	QPSK	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/
LTE 14	Main	Back Side	0	QPSK	Sensor on	1	25	23330/793	20.00	19.64	0.810	0.140	1.09	0.880	25
			0	QPSK	Sensor on	50%	25	23330/793	20.00	19.64	0.772	0.120	1.09	0.839	/
			0	QPSK	Sensor on	100%	0	23330/793	20.00	19.61	0.725	0.070	1.09	0.793	/
		Back Side Repeat	0	QPSK	Sensor on	1	25	23330/793	20.00	19.64	0.792	-0.030	1.09	0.860	/
		Front Side	0	QPSK	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/
			0	QPSK	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/
		Left Edge	0	QPSK	Sensor off	1	25	23330/793	24.00	23.27	0.258	0.048	1.18	0.305	/
			0	QPSK	Sensor off	50%	25	23330/793	23.00	22.34	0.194	0.020	1.16	0.226	/
		Right Edge	0	QPSK	Sensor on	1	25	23330/793	20.00	19.64	0.268	0.058	1.09	0.291	/
			0	QPSK	Sensor on	50%	25	23330/793	20.00	19.64	0.232	0.020	1.09	0.252	/
		Top Edge	0	QPSK	Sensor on	1	25	23330/793	20.00	19.64	0.513	0.036	1.09	0.557	/

			0	QPSK	Sensor on	50%	25	23330/793	20.00	19.64	0.601	0.013	1.09	0.653	/
		Bottom Edge	0	QPSK	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/
			0	QPSK	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/
LTE 26	Main	Back Side	0	QPSK	Sensor on	1	38	26765/821.5	21.00	20.39	0.914	0.057	1.15	1.052	/
			0	QPSK	Sensor on	50%	18	26765/821.5	21.00	20.50	0.927	0.048	1.12	1.040	/
			0	QPSK	Sensor on	100%	0	26765/821.5	21.00	20.42	0.879	0.050	1.14	1.005	/
			0	QPSK	Sensor on	1	38	26865/831.5	21.00	20.37	0.887	0.048	1.16	1.025	/
			0	QPSK	Sensor on	1	38	26965/841.5	21.00	20.38	0.897	-0.140	1.15	1.035	/
			0	QPSK	Sensor on	50%	18	26865/831.5	21.00	20.45	0.878	0.060	1.14	0.997	/
			0	QPSK	Sensor on	50%	0	26965/841.5	21.00	20.49	0.940	0.020	1.12	1.057	26
			0	QPSK	Sensor on	100%	0	26865/831.5	21.00	20.36	0.874	0.024	1.16	1.013	/
			0	QPSK	Sensor on	100%	0	26965/841.5	21.00	20.39	0.832	0.090	1.15	0.957	/
		Back Side Repeat	0	QPSK	Sensor on	50%	0	26965/841.5	21.00	20.49	0.918	0.033	1.12	1.032	/
		Front Side	0	QPSK	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/
			0	QPSK	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/
		Left Edge	0	QPSK	Sensor off	1	38	26765/821.5	24.00	23.26	0.249	0.017	1.19	0.295	/
			0	QPSK	Sensor off	50%	39	26765/821.5	23.00	22.36	0.200	0.049	1.16	0.232	/
		Right Edge	0	QPSK	Sensor on	1	38	26765/821.5	21.00	20.39	0.404	0.028	1.15	0.465	/
			0	QPSK	Sensor on	50%	18	26765/821.5	21.00	20.50	0.421	0.047	1.12	0.472	/
		Top Edge	0	QPSK	Sensor on	1	38	26765/821.5	21.00	20.39	0.664	0.062	1.15	0.764	/
			0	QPSK	Sensor on	50%	18	26765/821.5	21.00	20.50	0.689	-0.080	1.12	0.773	/
		Bottom Edge	0	QPSK	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/
			0	QPSK	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/
LTE 30	Main	Back Side	0	QPSK	Sensor on	1	25	27710/2310	14.00	12.95	0.803	0.028	1.27	1.023	/
			0	QPSK	Sensor on	50%	13	27710/2310	14.00	12.96	0.824	0.170	1.27	1.047	27
			0	QPSK	Sensor on	100%	0	27710/2310	14.00	12.93	0.792	0.022	1.28	1.013	/
		Back Side Repeat	0	QPSK	Sensor on	50%	13	27710/2310	14.00	12.96	0.815	-0.076	1.27	1.036	/
		Front Side	0	QPSK	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/
			0	QPSK	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/
		Left Edge	0	QPSK	Sensor off	1	25	27710/2310	24.00	22.64	0.126	0.032	1.37	0.172	/
			0	QPSK	Sensor off	50%	0	27710/2310	23.00	21.72	0.108	-0.010	1.34	0.145	/
		Right Edge	0	QPSK	Sensor on	1	25	27710/2310	14.00	12.95	0.374	0.010	1.27	0.476	/
			0	QPSK	Sensor on	50%	13	27710/2310	14.00	12.96	0.313	-0.035	1.27	0.398	/
		Top Edge	0	QPSK	Sensor on	1	25	27710/2310	14.00	12.95	0.494	0.022	1.27	0.629	/
			0	QPSK	Sensor on	50%	13	27710/2310	14.00	12.96	0.453	0.080	1.27	0.576	/
		Bottom Edge	0	QPSK	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/
			0	QPSK	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/
LTE 41	Main	Back Side	0	QPSK	Sensor on	1	0	41490/2680	14.00	13.41	0.468	0.010	1.15	0.536	/
			0	QPSK	Sensor on	50%	25	41490/2680	14.00	13.40	0.475	0.036	1.15	0.545	/
		Front Side	0	QPSK	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/
			0	QPSK	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/

		Left Edge	0	QPSK	Sensor off	1	50	41490/2680	24.00	23.27	0.074	0.160	1.18	0.088	/
			0	QPSK	Sensor off	50%	25	41490/2680	23.00	22.21	0.056	0.029	1.20	0.067	/
		Right Edge	0	QPSK	Sensor on	1	0	41490/2680	14.00	13.41	0.090	-0.070	1.15	0.103	/
			0	QPSK	Sensor on	50%	25	41490/2680	14.00	13.40	0.096	0.013	1.15	0.110	/
		Top Edge	0	QPSK	Sensor on	1	0	41490/2680	14.00	13.41	0.658	0.140	1.15	0.754	/
			0	QPSK	Sensor on	50%	25	41490/2680	14.00	13.40	0.661	0.190	1.15	0.759	28
		Bottom Edge	0	QPSK	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/
			0	QPSK	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/
LTE 66	Main	Back Side	0	QPSK	Sensor on	1	50	132072/1720	14.00	13.52	0.551	0.012	1.12	0.615	/
			0	QPSK	Sensor on	50%	0	132072/1720	14.00	13.44	0.521	0.037	1.14	0.593	/
		Front Side	0	QPSK	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/
			0	QPSK	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/
		Left Edge	0	QPSK	Sensor off	1	50	132072/1720	24.00	23.15	0.356	0.050	1.22	0.433	/
			0	QPSK	Sensor off	50%	0	132072/1720	23.00	22.21	0.253	0.037	1.20	0.303	/
		Right Edge	0	QPSK	Sensor on	1	50	132072/1720	14.00	13.52	0.074	0.040	1.12	0.083	/
			0	QPSK	Sensor on	50%	0	132072/1720	14.00	13.44	0.124	0.017	1.14	0.141	/
		Top Edge	0	QPSK	Sensor on	1	50	132072/1720	14.00	13.52	0.649	0.080	1.12	0.725	29
			0	QPSK	Sensor on	50%	0	132072/1720	14.00	13.44	0.621	0.038	1.14	0.706	/
		Bottom Edge	0	QPSK	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/
			0	QPSK	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/
LTE 71	Main	Back Side	0	QPSK	Sensor on	1	50	133372/688	20.50	19.90	0.678	0.046	1.15	0.778	30
			0	QPSK	Sensor on	50%	0	133372/688	20.50	19.90	0.665	0.033	1.15	0.764	/
		Front Side	0	QPSK	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/
			0	QPSK	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/
		Left Edge	0	QPSK	Sensor off	1	50	133222/673	24.00	23.37	0.301	0.080	1.16	0.348	/
			0	QPSK	Sensor off	50%	0	133372/688	23.00	22.23	0.275	0.010	1.19	0.328	/
		Right Edge	0	QPSK	Sensor on	1	50	133372/688	20.50	19.90	0.220	0.021	1.15	0.253	/
			0	QPSK	Sensor on	50%	0	133372/688	20.50	19.90	0.291	-0.045	1.15	0.334	/
		Top Edge	0	QPSK	Sensor on	1	50	133372/688	20.50	19.90	0.563	0.060	1.15	0.646	/
			0	QPSK	Sensor on	50%	0	133372/688	20.50	19.90	0.467	0.170	1.15	0.536	/
		Bottom Edge	0	QPSK	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/
			0	QPSK	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/

Band	Antenna	Test Position	Dist. (mm)	Mode	Duty Cycle	Power Reduction	Ch./Freq. (MHz)	Tune-up (dBm)	Measured power (dBm)	Measured SAR1g (W/Kg)	Power Drift (dB)	Scaling Factor	Report SAR1g (W/kg)	Plot No.
2.4G	WIFI	Back Side	0	802.11b	100.0%	Sensor on	11/2462	12.50	11.94	0.560	0.091	1.14	0.637	31
		Front Side	0	802.11b	100.0%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/
		Left Edge	0	802.11b	100.0%	Sensor on	11/2462	12.50	11.94	0.380	0.018	1.14	0.432	/
		Right Edge	0	802.11b	100.0%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/
		Top Edge	0	802.11b	100.0%	Sensor on	11/2462	12.50	11.94	0.253	0.035	1.14	0.288	/
		Bottom Edge	0	802.11b	100.0%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/
U-NII-2A	WIFI	Back Side	0	802.11a	100.0%	Sensor on	52/5260	11.50	10.33	0.582	0.011	1.31	0.762	/
		Front Side	0	802.11a	100.0%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/
		Left Edge	0	802.11a	100.0%	Sensor on	52/5260	11.50	10.33	0.352	0.060	1.31	0.461	/
		Right Edge	0	802.11a	100.0%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/
		Top Edge	0	802.11a	100.0%	Sensor on	52/5260	11.50	10.33	0.278	0.099	1.31	0.364	/
		Bottom Edge	0	802.11a	100.0%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/
U-NII-2C	WIFI	Back Side	0	802.11a	100.0%	Sensor on	140/5700	11.50	10.65	0.574	0.100	1.22	0.698	/
		Front Side	0	802.11a	100.0%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/
		Left Edge	0	802.11a	100.0%	Sensor on	140/5700	11.50	10.65	0.384	0.032	1.22	0.467	/
		Right Edge	0	802.11a	100.0%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/
		Top Edge	0	802.11a	100.0%	Sensor on	140/5700	11.50	10.65	0.199	0.026	1.22	0.242	/
		Bottom Edge	0	802.11a	100.0%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/
U-NII-3	WIFI	Back Side	0	802.11a	100.0%	Sensor on	149/5745	11.50	10.93	0.628	-0.100	1.14	0.716	32
		Front Side	0	802.11a	100.0%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/
		Left Edge	0	802.11a	100.0%	Sensor on	149/5745	11.50	10.93	0.285	0.020	1.14	0.325	/
		Right Edge	0	802.11a	100.0%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/
		Top Edge	0	802.11a	100.0%	Sensor on	149/5745	11.50	10.93	0.302	-0.030	1.14	0.344	/
		Bottom Edge	0	802.11a	100.0%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/
Bluetooth	BT	Back Side	0	DH5	76.9%	Full Power	39/2441	9.50	8.27	0.161	0.130	1.73	0.278	33
		Front Side	0	DH5	76.9%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/
		Left Edge	0	DH5	76.9%	Full Power	39/2441	9.50	8.27	0.106	-0.090	1.73	0.183	/
		Right Edge	0	DH5	76.9%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/
		Top Edge	0	DH5	76.9%	Full Power	39/2441	9.50	8.27	0.056	0.019	1.73	0.097	/
		Bottom Edge	0	N/A	76.9%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/

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

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)
GSM850	Main	Back Side	14	4TX Slots	Sensor off	N/A	N/A	190/836.6	29.00	28.83	0.389	0.055	1.04	0.405
		Right Edge	13	4TX Slots	Sensor off	N/A	N/A	190/836.6	29.00	28.83	0.157	0.070	1.04	0.163
		Top Edge	14	4TX Slots	Sensor off	N/A	N/A	190/836.6	29.00	28.83	0.224	-0.039	1.04	0.233
GSM1900	Main	Back Side	14	3TX Slots	Sensor off	N/A	N/A	661/1880	27.50	26.93	0.570	-0.030	1.14	0.650
		Right Edge	13	3TX Slots	Sensor off	N/A	N/A	661/1880	27.50	26.93	0.185	0.011	1.14	0.211
		Top Edge	14	3TX Slots	Sensor off	N/A	N/A	661/1880	27.50	26.93	0.359	0.058	1.14	0.409
WCDMA II	Main	Back Side	14	RMC	Sensor off	N/A	N/A	9400/1880	24.00	23.47	0.777	0.053	1.13	0.878
		Back Side	14	RMC	Sensor off	N/A	N/A	9262/1852.4	24.00	23.41	0.783	0.029	1.15	0.897
		Back Side	14	RMC	Sensor off	N/A	N/A	9538/1907.6	24.00	23.44	0.784	0.070	1.14	0.892
		Right Edge	13	RMC	Sensor off	N/A	N/A	9400/1880	24.00	23.47	0.391	0.042	1.13	0.442
		Top Edge	14	RMC	Sensor off	N/A	N/A	9400/1880	24.00	23.47	0.756	0.078	1.13	0.854
		Top Edge	14	RMC	Sensor off	N/A	N/A	9262/1852.4	24.00	23.41	0.851	0.095	1.15	0.975
		Top Edge	14	RMC	Sensor off	N/A	N/A	9538/1907.6	24.00	23.44	0.822	0.032	1.14	0.935
WCDMA IV	Main	Back Side	14	RMC	Sensor off	N/A	N/A	1413/1732.6	24.00	23.25	0.549	0.030	1.19	0.652
		Right Edge	13	RMC	Sensor off	N/A	N/A	1413/1732.6	24.00	23.25	0.171	0.034	1.19	0.203
		Top Edge	14	RMC	Sensor off	N/A	N/A	1413/1732.6	24.00	23.25	0.630	0.020	1.19	0.749
WCDMA V	Main	Back Side	14	RMC	Sensor off	N/A	N/A	4183/836.6	24.00	23.66	0.398	-0.180	1.08	0.430
		Right Edge	13	RMC	Sensor off	N/A	N/A	4183/836.6	24.00	23.66	0.065	0.016	1.08	0.070
		Top Edge	14	RMC	Sensor off	N/A	N/A	4183/836.6	24.00	23.66	0.211	0.010	1.08	0.228
LTE 2	Main	Back Side	14	QPSK	Sensor off	1	50	19100/1900	24.00	22.83	0.759	0.060	1.31	0.994
			14	QPSK	Sensor off	1	50	18700/1860	24.00	22.82	0.736	0.014	1.31	0.966
			14	QPSK	Sensor off	1	50	18900/1880	24.00	22.81	0.738	0.039	1.32	0.971
			14	QPSK	Sensor off	50%	0	19100/1900	23.00	21.87	0.601	0.080	1.30	0.780
		Right Edge	13	QPSK	Sensor off	1	50	19100/1900	24.00	22.83	0.336	-0.059	1.31	0.440
			13	QPSK	Sensor off	50%	0	19100/1900	23.00	21.87	0.289	0.019	1.30	0.375
		Top Edge	14	QPSK	Sensor off	1	50	19100/1900	24.00	22.83	0.611	0.068	1.31	0.800
			14	QPSK	Sensor off	50%	0	19100/1900	23.00	21.87	0.398	0.046	1.30	0.516
LTE 5	Main	Back Side	14	QPSK	Sensor off	1	25	20525/836.5	24.00	23.34	0.427	0.013	1.16	0.497
			14	QPSK	Sensor off	50%	25	20450/829	23.00	22.41	0.340	0.070	1.15	0.389
		Right Edge	13	QPSK	Sensor off	1	25	20525/836.5	24.00	23.34	0.107	0.046	1.16	0.125
			13	QPSK	Sensor off	50%	25	20450/829	23.00	22.41	0.084	-0.089	1.15	0.096
		Top Edge	14	QPSK	Sensor off	1	25	20525/836.5	24.00	23.34	0.290	0.040	1.16	0.338
			14	QPSK	Sensor off	50%	25	20450/829	23.00	22.41	0.215	0.023	1.15	0.246
LTE 7	Main	Back Side	14	QPSK	Sensor off	1	50	21350/2560	24.00	22.97	0.577	0.150	1.27	0.731
			14	QPSK	Sensor off	50%	50	21350/2560	23.00	22.01	0.493	0.037	1.26	0.619
		Right Edge	13	QPSK	Sensor off	1	50	21350/2560	24.00	22.97	0.525	0.060	1.27	0.666
			13	QPSK	Sensor off	50%	50	21350/2560	23.00	22.01	0.392	-0.180	1.26	0.492
		Top Edge	14	QPSK	Sensor off	1	50	21350/2560	24.00	22.97	0.744	0.022	1.27	0.943

			14	QPSK	Sensor off	1	50	20850/2510	24.00	22.86	0.676	0.027	1.30	0.879
			14	QPSK	Sensor off	1	50	21100/2535	24.00	22.86	0.719	0.090	1.30	0.935
			14	QPSK	Sensor off	50%	50	21350/2560	23.00	22.01	0.616	0.025	1.26	0.774
LTE 12	Main	Back Side	14	QPSK	Sensor off	1	25	23060/704	24.00	23.32	0.420	0.049	1.17	0.491
			14	QPSK	Sensor off	50%	25	23060/704	23.00	22.33	0.321	0.013	1.17	0.375
		Right Edge	13	QPSK	Sensor off	1	25	23060/704	24.00	23.32	0.090	0.017	1.17	0.105
			13	QPSK	Sensor off	50%	25	23060/704	23.00	22.33	0.076	0.025	1.17	0.089
		Top Edge	14	QPSK	Sensor off	1	25	23060/704	24.00	23.32	0.322	0.094	1.17	0.377
			14	QPSK	Sensor off	50%	25	23060/704	23.00	22.33	0.254	0.070	1.17	0.296
LTE 13	Main	Back Side	14	QPSK	Sensor off	1	25	23230/782	24.00	23.39	0.430	0.052	1.15	0.495
			14	QPSK	Sensor off	50%	25	23230/782	23.00	22.44	0.336	0.050	1.14	0.382
		Right Edge	13	QPSK	Sensor off	1	25	23230/782	24.00	23.39	0.090	0.170	1.15	0.104
			13	QPSK	Sensor off	50%	25	23230/782	23.00	22.44	0.082	0.058	1.14	0.093
		Top Edge	14	QPSK	Sensor off	1	25	23230/782	24.00	23.39	0.291	0.040	1.15	0.335
			14	QPSK	Sensor off	50%	25	23230/782	23.00	22.44	0.242	0.020	1.14	0.275
LTE 14	Main	Back Side	14	QPSK	Sensor off	1	25	23330/793	24.00	23.27	0.400	0.056	1.18	0.473
			14	QPSK	Sensor off	50%	25	23330/793	23.00	22.34	0.295	0.011	1.16	0.343
		Right Edge	13	QPSK	Sensor off	1	25	23330/793	24.00	23.27	0.081	0.025	1.18	0.096
			13	QPSK	Sensor off	50%	25	23330/793	23.00	22.34	0.066	0.060	1.16	0.077
		Top Edge	14	QPSK	Sensor off	1	25	23330/793	24.00	23.27	0.285	0.027	1.18	0.337
			14	QPSK	Sensor off	50%	25	23330/793	23.00	22.34	0.216	0.016	1.16	0.251
LTE 26	Main	Back Side	14	QPSK	Sensor off	1	38	26765/821.5	24.00	23.26	0.400	0.058	1.19	0.474
			14	QPSK	Sensor off	50%	39	26765/821.5	23.00	22.36	0.327	0.030	1.16	0.379
		Right Edge	13	QPSK	Sensor off	1	38	26765/821.5	24.00	23.26	0.099	0.090	1.19	0.117
			13	QPSK	Sensor off	50%	39	26765/821.5	23.00	22.36	0.107	0.041	1.16	0.124
		Top Edge	14	QPSK	Sensor off	1	38	26765/821.5	24.00	23.26	0.246	0.014	1.19	0.292
			14	QPSK	Sensor off	50%	39	26765/821.5	23.00	22.36	0.214	0.093	1.16	0.248
LTE 30	Main	Back Side	14	QPSK	Sensor off	1	25	27710/2310	24.00	22.64	0.479	0.026	1.37	0.655
			14	QPSK	Sensor off	50%	0	27710/2310	23.00	21.72	0.364	0.080	1.34	0.489
		Right Edge	13	QPSK	Sensor off	1	25	27710/2310	24.00	22.64	0.535	0.024	1.37	0.732
			13	QPSK	Sensor off	50%	0	27710/2310	23.00	21.72	0.432	0.045	1.34	0.580
		Top Edge	14	QPSK	Sensor off	1	25	27710/2310	24.00	22.64	0.216	0.020	1.37	0.295
			14	QPSK	Sensor off	50%	0	27710/2310	23.00	21.72	0.175	-0.062	1.34	0.235
LTE 41	Main	Back Side	14	QPSK	Sensor off	1	50	41490/2680	24.00	23.27	0.673	0.023	1.18	0.796
			14	QPSK	Sensor off	50%	25	41490/2680	23.00	22.21	0.505	0.030	1.20	0.606
		Right Edge	13	QPSK	Sensor off	1	50	41490/2680	24.00	23.27	0.078	0.019	1.18	0.092
			13	QPSK	Sensor off	50%	25	41490/2680	23.00	22.21	0.052	0.013	1.20	0.062
		Top Edge	14	QPSK	Sensor off	1	50	41490/2680	24.00	23.27	0.695	0.050	1.18	0.822
			14	QPSK	Sensor off	50%	25	41490/2680	23.00	22.21	0.571	-0.080	1.20	0.685
			14	QPSK	Sensor off	1	50	40620/2593	24.00	23.15	0.523	0.040	1.22	0.636
			14	QPSK	Sensor off	1	50	41055/2636.5	24.00	23.22	0.742	0.035	1.20	0.888
LTE 66	Main	Back Side	14	QPSK	Sensor off	1	50	132072/1720	24.00	23.15	0.498	0.010	1.22	0.606
			14	QPSK	Sensor off	50%	0	132072/1720	23.00	22.21	0.394	0.028	1.20	0.473

		Right Edge	13	QPSK	Sensor off	1	50	132072/1720	24.00	23.15	0.165	0.150	1.22	0.201
			13	QPSK	Sensor off	50%	0	132072/1720	23.00	22.21	0.110	0.014	1.20	0.132
		Top Edge	14	QPSK	Sensor off	1	50	132072/1720	24.00	23.15	0.709	0.160	1.22	0.862
			14	QPSK	Sensor off	1	50	132322/1745	24.00	23.08	0.682	0.012	1.24	0.843
			14	QPSK	Sensor off	1	50	132572/1770	24.00	23.14	0.653	-0.020	1.22	0.796
			14	QPSK	Sensor off	50%	0	132072/1720	23.00	22.21	0.562	0.073	1.20	0.674
LTE 71	Main	Back Side	14	QPSK	Sensor off	1	50	133222/673	24.00	23.37	0.304	0.010	1.16	0.351
			14	QPSK	Sensor off	50%	0	133372/688	23.00	22.23	0.234	0.058	1.19	0.279
		Right Edge	13	QPSK	Sensor off	1	50	133222/673	24.00	23.37	0.062	0.070	1.16	0.072
			13	QPSK	Sensor off	50%	0	133372/688	23.00	22.23	0.054	0.060	1.19	0.064
		Top Edge	14	QPSK	Sensor off	1	50	133222/673	24.00	23.37	0.223	0.042	1.16	0.258
			14	QPSK	Sensor off	50%	0	133372/688	23.00	22.23	0.181	0.098	1.19	0.216

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)
2.4G	WIFI	Back Side	13	802.11b	100.0%	Sensor off	11/2462	16.50	16.28	0.148	0.060	1.05	0.156
		Left Edge	13	802.11b	100.0%	Sensor off	11/2462	16.50	16.28	0.152	0.050	1.05	0.160
		Top Edge	13	802.11b	100.0%	Sensor off	11/2462	16.50	16.28	0.072	0.041	1.05	0.076
U-NII-2A	WIFI	Back Side	13	802.11a	100.0%	Sensor off	64/5320	18.50	17.86	0.468	0.013	1.16	0.542
		Left Edge	13	802.11a	100.0%	Sensor off	64/5320	18.50	17.86	0.382	0.020	1.16	0.443
		Top Edge	13	802.11a	100.0%	Sensor off	64/5320	18.50	17.86	0.251	0.080	1.16	0.291
U-NII-2C	WIFI	Back Side	13	802.11n HT20	100.0%	Sensor off	100/5500	18.50	18.33	0.452	0.028	1.04	0.470
		Left Edge	13	802.11n HT20	100.0%	Sensor off	100/5500	18.50	18.33	0.242	0.029	1.04	0.252
		Top Edge	13	802.11n HT20	100.0%	Sensor off	100/5500	18.50	18.33	0.158	-0.049	1.04	0.164
U-NII-3	WIFI	Back Side	13	802.11a	100.0%	Sensor off	149/5745	18.50	18.38	0.426	0.057	1.03	0.438
		Left Edge	13	802.11a	100.0%	Sensor off	149/5745	18.50	18.38	0.251	-0.010	1.03	0.258
		Top Edge	13	802.11a	100.0%	Sensor off	149/5745	18.50	18.38	0.185	0.038	1.03	0.190

10.2 Simultaneous Transmission Analysis

Simultaneous Transmission Configurations	Body SAR
WWAN + Wi-Fi 2.4GHz	Yes
WWAN + Wi-Fi 5GHz	Yes
WWAN + Bluetooth	Yes
WWAN + Wi-Fi 2.4GHz+ Bluetooth	Yes
WWAN + Wi-Fi 5GHz+ Bluetooth	Yes

General Note:

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

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

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

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

The Maximum SAR_{1g} Value

SAR_{1g} (W/kg) Test Position	GSM 850	GSM 1900	WCDMA Band II	WCDMA Band IV	WCDMA Band V	LTE 2	LTE 5	LTE 7	LTE 12	LTE 13	LTE 14	LTE 26	LTE 30	LTE 41	LTE 66	LTE 71	MAX. SAR_{1g}
Back Side	0.774	0.685	0.706	0.741	0.751	0.680	0.704	0.762	0.791	0.796	0.880	1.057	1.047	0.545	0.615	0.778	1.057
Front Side	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Left Edge	0.338	0.222	0.298	0.393	0.074	0.268	0.267	0.080	0.356	0.336	0.305	0.295	0.172	0.088	0.433	0.348	0.433
Right Edge	0.447	0.441	0.294	0.191	0.072	0.278	0.345	0.230	0.458	0.285	0.291	0.472	0.476	0.110	0.141	0.334	0.476
Top Edge	0.408	0.756	0.723	0.889	0.765	0.713	0.677	0.729	0.754	0.690	0.653	0.773	0.629	0.759	0.725	0.646	0.889
Bottom Edge	0.122	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.122

About Bluetooth, Wi-Fi and WWAN Antenna

SAR_{1g} (W/kg) Test Position	GSM/ WCDMA/ LTE	Wi-Fi 2.4GHz	Wi-Fi 5GHz			Bluetooth	Wi-Fi 2.4GHz + Bluetooth	Wi-Fi 5GHz + Bluetooth	MAX. ΣSAR_{1g}	
			U-NII-2A	U-NII-2C	U-NII-3					
	1	2	3	4	5	6	7	8	1+(2+6) or 7	1+(Max. (3-5)+6) or 8
Back Side	1.057	--	--	--	--	--	0.714	0.735	1.771	1.792
Front Side	N/A	N/A	N/A	N/A	N/A	N/A	--	--	0	0
Left Edge	0.433	0.432	0.461	0.467	0.325	0.183	--	--	1.048	1.083
Right Edge	0.476	N/A	N/A	N/A	N/A	N/A	--	--	0.476	0.476
Top Edge	0.889	0.288	0.364	0.242	0.344	0.097	--	--	1.274	1.350
Bottom Edge	0.122	N/A	N/A	N/A	N/A	N/A	--	--	0.122	0.122

Note:

1. MAX. ΣSAR_{1g} =Unlicensed SAR_{MAX} +Licensed SAR_{MAX}
2. MAX. ΣSAR_{1g} =1.792W/kg＞1.6W/kg

So, the SAR to peak location separation ratio should be considered

Multi-Band Average SAR WIFI 2.4G+BT

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

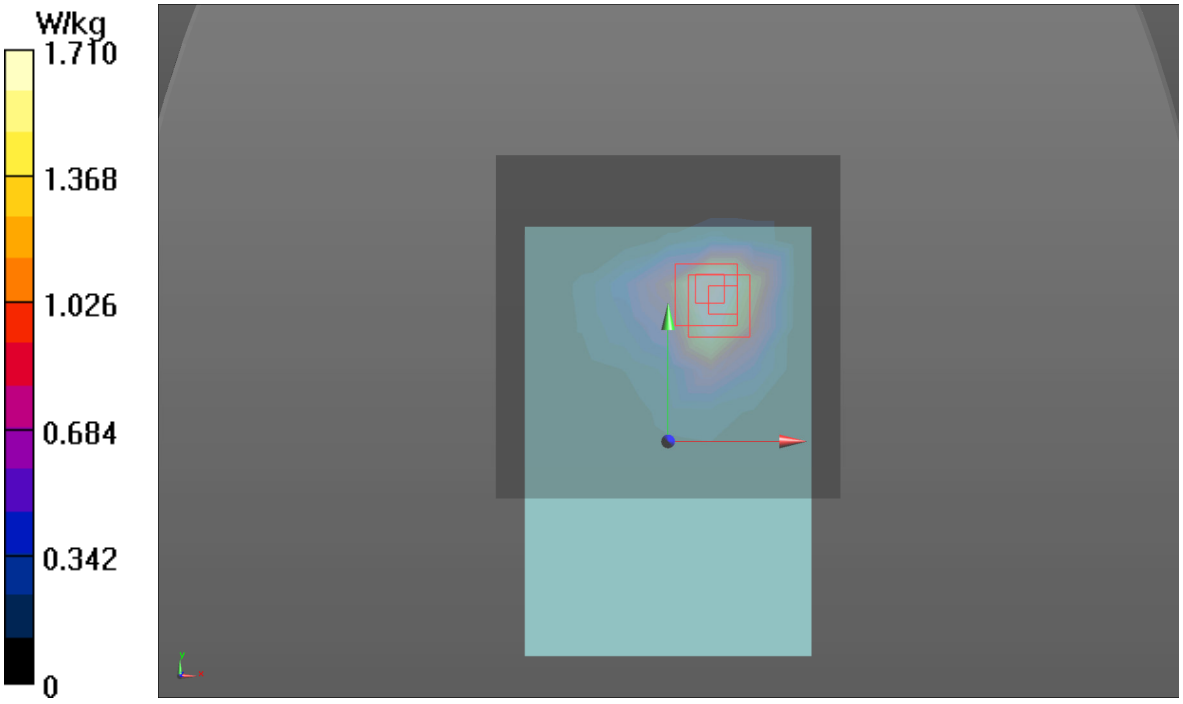
DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Multi Band Result:

SAR(1 g) = 0.714 W/kg; SAR(10 g) = 0.312 W/kg

Maximum value of SAR (interpolated) = 1.71 W/kg



Multi-Band Average SAR WIFI 5G+BT

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

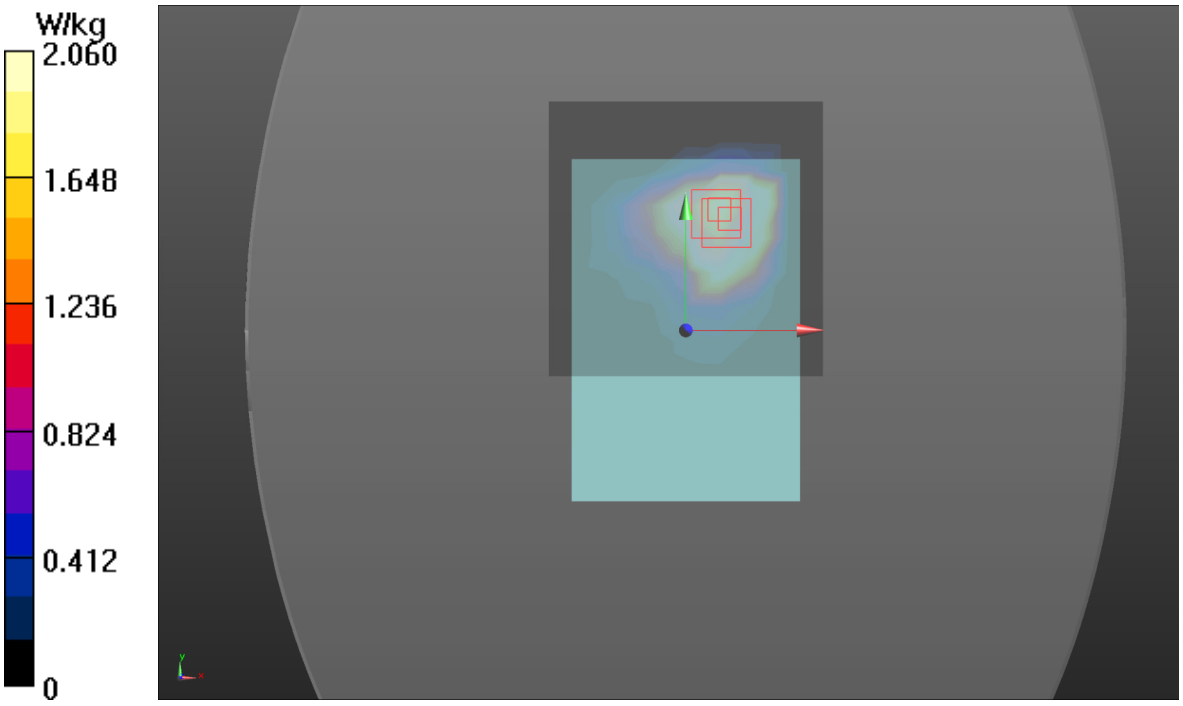
DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Multi Band Result:

SAR(1 g) = 0.735 W/kg; SAR(10 g) = 0.218 W/kg

Maximum value of SAR (interpolated) = 2.06 W/kg



Band	Back Side				
	WWAN	Wi-Fi 2.4GHz + Bluetooth	WWAN + Wi-Fi 2.4GHz+ Bluetooth	Wi-Fi 5GHz + Bluetooth	WWAN + Wi-Fi 5GHz+ Bluetooth
GSM 850	0.774	0.714	1.488	0.735	1.509
GSM 1900	0.685	0.714	1.399	0.735	1.420
WCDMA II	0.706	0.714	1.420	0.735	1.441
WCDMA IV	0.741	0.714	1.455	0.735	1.476
WCDMA V	0.751	0.714	1.465	0.735	1.486
LTE 2	0.68	0.714	1.394	0.735	1.415
LTE 5	0.704	0.714	1.418	0.735	1.439
LTE 7	0.762	0.714	1.476	0.735	1.497
LTE 12	0.791	0.714	1.505	0.735	1.526
LTE 13	0.796	0.714	1.510	0.735	1.531
LTE 14	0.88	0.714	1.594	0.735	1.615
LTE 26	1.057	0.714	1.771	0.735	1.792
LTE 30	1.047	0.714	1.761	0.735	1.782
LTE 41	0.545	0.714	1.259	0.735	1.280
LTE 66	0.615	0.714	1.329	0.735	1.350
LTE 71	0.778	0.714	1.492	0.735	1.513

Note:

1. The value with blue color is the SAR_{1g}>1.6 W/kg.

2. When the MAX. Σ SAR_{1g}>1.6 W/kg in a position, Ratio need consideration in this position.

Back Side, WWAN + Wi-Fi 2.4GHz + Bluetooth

LTE26+Wi-Fi 2.4GHz+Bluetooth			
	X	Y	Z
The position SAR1	-43.5	80	-180.5
The position SAR2	45	77.5	-179.9
Ri(mm)	88.53733676		
SAR1(W/Kg)	1.057		
SAR2(W/Kg)	0.714		
Ratio	0.027		

LTE30+Wi-Fi 2.4GHz+Bluetooth			
	X	Y	Z
The position SAR1	-48	78.5	-180.4
The position SAR2	45	77.5	-179.9
Ri(mm)	93.00672019		
SAR1(W/Kg)	1.047		
SAR2(W/Kg)	0.714		
Ratio	0.025		

Back Side, WWAN + Wi-Fi 5GHz

LTE14+Wi-Fi 5GHz+Bluetooth			
	X	Y	Z
The position SAR1	-42.5	81.5	180.2
The position SAR2	45.5	82	-180.1
Ri(mm)	370.8912779		
SAR1(W/Kg)	0.880		
SAR2(W/Kg)	0.735		
Ratio	0.006		

LTE26+Wi-Fi 5GHz+Bluetooth			
	X	Y	Z
The position SAR1	-43.5	80	-180.5
The position SAR2	45.5	82	-180.1
Ri(mm)	89.02336772		
SAR1(W/Kg)	1.057		
SAR2(W/Kg)	0.735		
Ratio	0.027		

LTE30+Wi-Fi 5GHz+Bluetooth			
	X	Y	Z
The position SAR1	-48	78.5	-180.4
The position SAR2	45.5	82	-180.1
Ri(mm)	93.56596603		
SAR1(W/Kg)	1.047		
SAR2(W/Kg)	0.735		
Ratio	0.025		

So the Simultaneous transmission SAR with volume scan are not required for Bluetooth, Wi-Fi and WWAN Antenna.

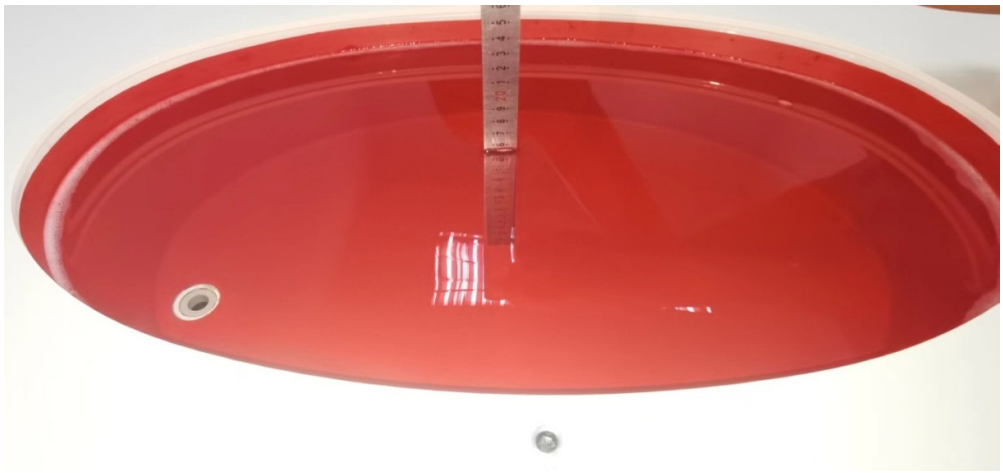
11 Measurement Uncertainty

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.

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 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: 3/11/2025

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

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

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN7689; ConvF(9.58, 10.07, 10.24); Calibrated: 2024/6/4

Electronics: DAE4 SN1317; Calibrated: 2024/9/10

Phantom: ELI v4.0; Type: QDOVA001BB;

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) = 2.15 W/kg

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

Reference Value = 50.165V/m; Power Drift = -0.08 dB

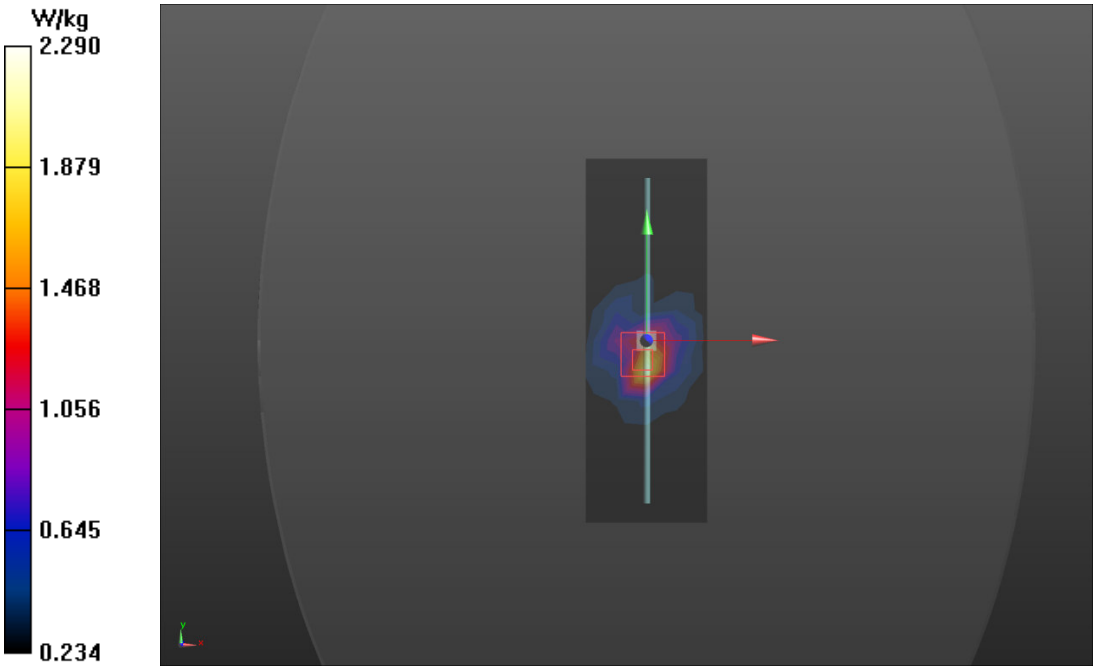
Peak SAR (extrapolated) = 3.16 W/kg

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

Smallest distance from peaks to all points 3 dB below = 8.7 mm

Ratio of SAR at M2 to SAR at M1 = 62.5%

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



Plot 2 System Performance Check at 750 MHz TSL

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

Date: 3/12/2025

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

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

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN7689; ConvF(9.58, 10.07, 10.24); Calibrated: 2024/6/4

Electronics: DAE4 SN1317; Calibrated: 2024/9/10

Phantom: ELI v4.0; Type: QDOVA001BB;

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) = 2.11 W/kg

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

Reference Value = 50.515V/m; Power Drift = 0.11 dB

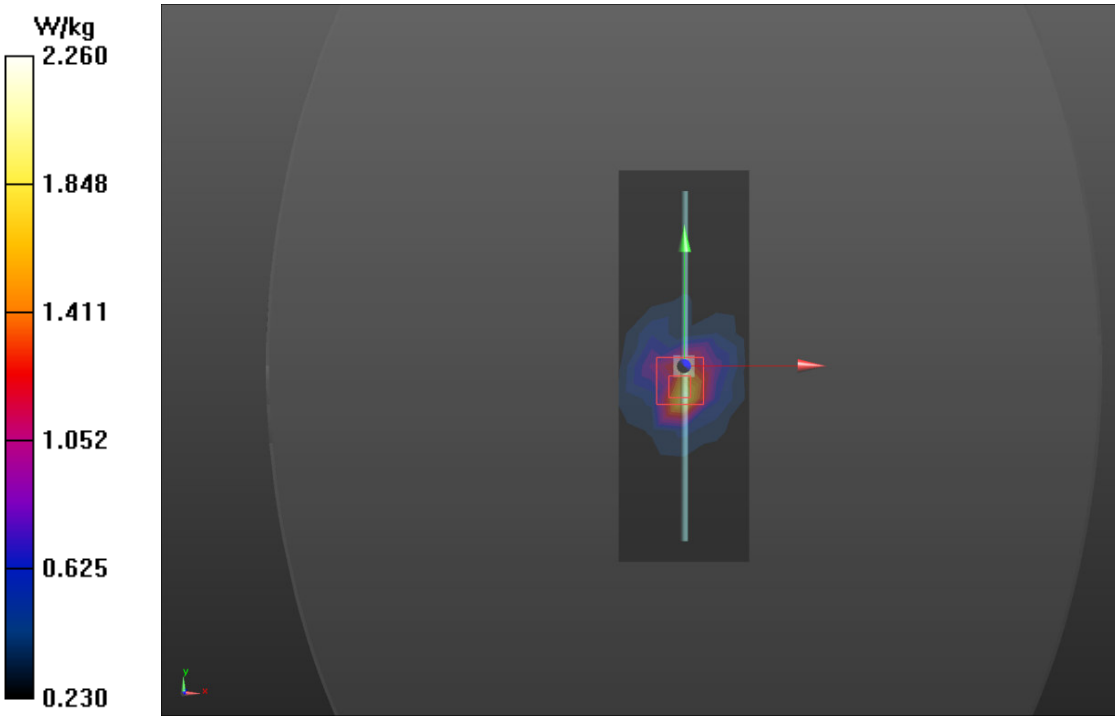
Peak SAR (extrapolated) = 3.02 W/kg

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

Smallest distance from peaks to all points 3 dB below = 8.3 mm

Ratio of SAR at M2 to SAR at M1 = 69.4%

Maximum value of SAR (measured) = 2.260 W/kg



Plot 3 System Performance Check at 835 MHz TSL

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

Date: 3/3/2025

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

Medium parameters used: f = 835 MHz; σ = 0.88 S/m; ε_r = 41.4; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN7689; ConvF(9.44, 9.92, 10.09); Calibrated: 2024/6/4

Electronics: DAE4 SN1317; Calibrated: 2024/9/10

Phantom: ELI v4.0; Type: QDOVA001BB;

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 = 53.241 V/m; Power Drift = -0.076 dB

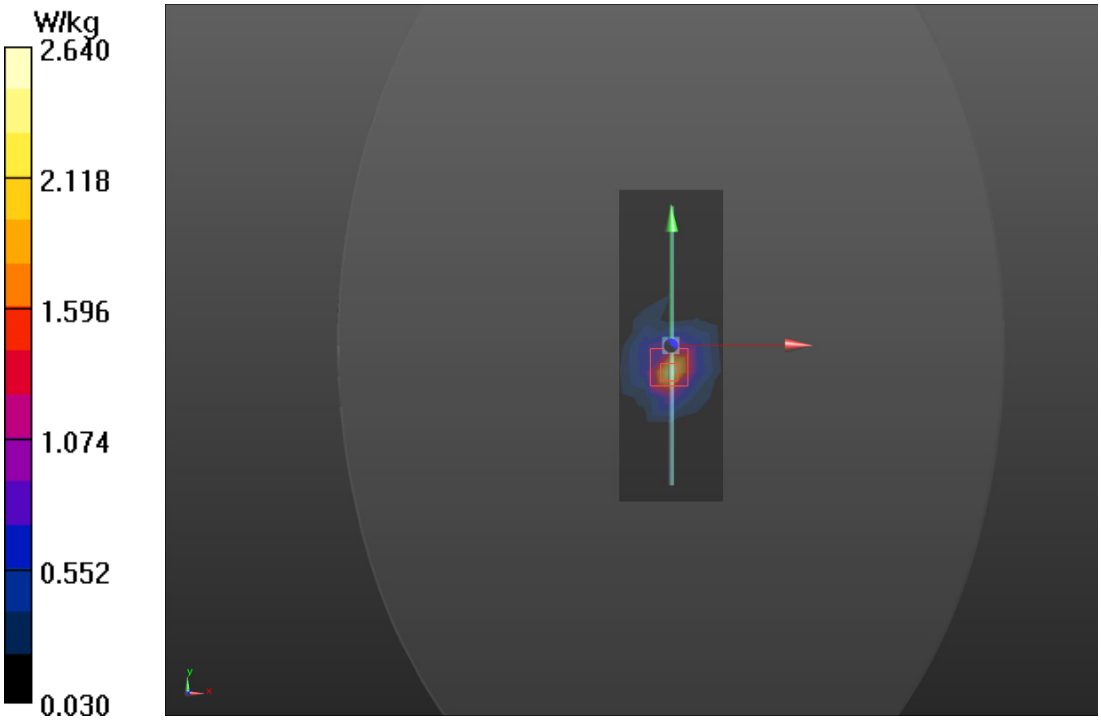
Peak SAR (extrapolated) = 3.67 W/kg

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

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

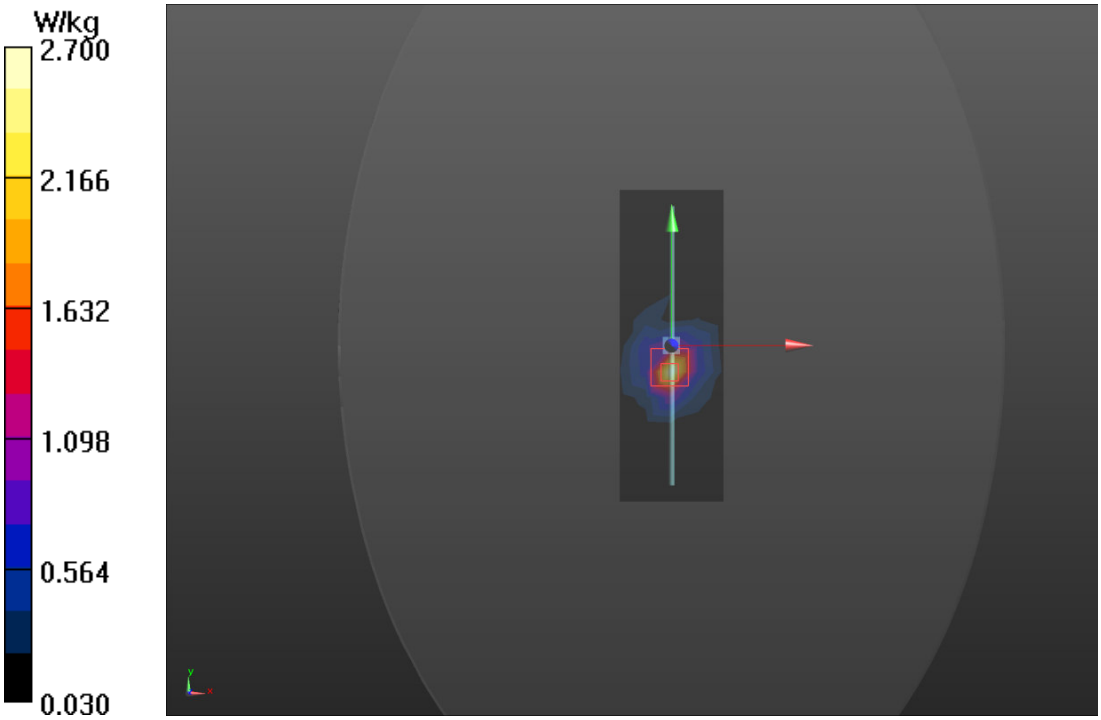
Ratio of SAR at M2 to SAR at M1 = 68.1%

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



Plot 4 System Performance Check at 835 MHz TSL
DUT: Dipole 835 MHz; Type: D835V2; Serial: D835V2
Date: 3/10/2025
Communication System: CW; Frequency: 835 MHz;Duty Cycle: 1:1
Medium parameters used: f = 835 MHz; σ =0.87 S/m; ε_r = 41.3; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Flat Section
DASY5 Configuration:
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Probe: EX3DV4 - SN7689; ConvF(9.44, 9.92, 10.09); Calibrated: 2024/6/4
Electronics: DAE4 SN1317; Calibrated: 2024/9/10
Phantom: ELI v4.0; Type: QDOVA001BB;
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 = 52.023 V/m; Power Drift = -0.06 dB
Peak SAR (extrapolated) = 3.25 W/kg
SAR(1 g) = 2.46 W/kg; SAR(10 g) = 1.65 W/kg
Smallest distance from peaks to all points 3 dB below = 15.7 mm
Ratio of SAR at M2 to SAR at M1 = 65.4%
Maximum value of SAR (measured) = 2.70 W/kg



Plot 5 System Performance Check at 1750 MHz TSL
DUT: Dipole 1750 MHz; Type: D1750V2; Serial: D1750V2
Date: 3/4/2025
Communication System: CW; Frequency: 1750 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1750 MHz; σ = 1.34 S/m; ε_r = 40.2; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Flat Section
DASY5 Configuration:
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Probe: EX3DV4 - SN7689; ConvF(8.01, 8.42, 8.56); Calibrated: 2024/6/4
Electronics: DAE4 SN1317; Calibrated: 2024/9/10
Phantom: ELI v4.0; Type: QDOVA001BB;
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) = 9.18 W/kg
d=10mm, Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 80.385 V/m; Power Drift = 0.075 dB
Peak SAR (extrapolated) = 15.5 W/kg
SAR(1 g) = 8.95 W/kg; SAR(10 g) = 4.8 W/kg
Smallest distance from peaks to all points 3 dB below = 10mm
Ratio of SAR at M2 to SAR at M1 = 53.5%
Maximum value of SAR (measured) = 9.46 W/kg