SAR TEST REPORT

For

Mobile Phone

Model Number: CPH2477

FCC ID: R9C-22263

Report Number: WT238000017

Test Laboratory	:	Shenzhen Academy of Metrology and Quality Inspection National Digital Electronic Product Testing Center
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Test report declaration

Applicant	:	Guangdong OPPO Mobile Telecommunications Corp., Ltd.
Address	:	NO.18 Haibin Road, Wusha Village, Chang'an Town, Dongguan City, Guangdong, China
Manufacturer	:	Guangdong OPPO Mobile Telecommunications Corp., Ltd.
Address	:	NO.18 Haibin Road, Wusha Village, Chang'an Town, Dongguan City, Guangdong, China
EUT Description	:	Mobile Phone
Model No.	:	CPH2477
Brand	:	OPPO
FCC ID	:	R9C-22263

Test Standards:

FCC 47CFR Part 2(2.1093) IEEE Std 1528-2013 KDB 447498 D04v01 KDB 248227 D01v02r02 KDB 865664 D01v01r04 KDB 865664 D02v01r02 KDB 648474 D04v01r03 KDB 941225 D01v03r01 KDB 941225 D05v02r05 KDB 941225 D06v02r01

The EUT described above is tested by Shenzhen Academy of Metrology and Quality Inspection EMC Laboratory to determine the compliance of the applicable standards stated above. Shenzhen Academy of Metrology and Quality Inspection EMC Laboratory is assumed full responsibility for the accuracy of the test results.

The results documented in this report only apply to the tested sample, under the conditions and modes of operation as described herein.

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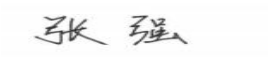
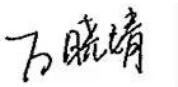
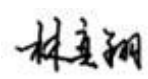
Project Engineer:  Date: Feb. 03, 2023

(Zhang Qiang)

Checked by:  Date: Feb. 03, 2023

(Wan Xiao Jing)

Approved by:  Date: Feb. 03, 2023

(Lin YiXiang)

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1. REPORTED SAR SUMMARY

1.1. Statement of Compliance

The maximum results of Specific Absorption Rate (SAR) found during testing are as follows.

Band		Highest SAR Summary			
		Head (Gap 0mm)	Hotspot (Gap10mm)	Body-worn (Gap15mm)	Extremity (Gap 0mm)
		1g SAR (W/kg)			10g SAR (W/kg)
GSM	GSM850	0.62	0.30	0.21	N/A
	PCS1900	0.68	0.75	0.34	N/A
WCDMA	WCDMA Band V	0.56	0.34	0.23	N/A
LTE	LTE Band 5	0.56	0.39	0.24	N/A
	LTE Band 7	0.68	1.02	0.44	N/A
	LTE Band 38	0.66	0.81	0.34	N/A
	LTE Band 41	0.55	0.41	0.36	N/A
WLAN	2.4GHzWLAN	0.54	0.37	0.17	N/A
	5GHzWLAN	0.89	1.15	0.77	1.48
2.4GHz Band	Bluetooth	0.26	0.08	0.03	0.28

Maximum Report SAR 1g(W/kg)	Head	0.89	Limit(W/kg): 1.6 W/kg
	Hotspot(10mm)	1.15	
	Body-worn(15mm)	0.77	
	Extremity(Gap 0mm)	1.48	Limit(W/kg): 4.0 W/kg

Highest Simultaneous SAR 1g(W/kg)	LTE Band 7+5G WIFI+BT	1.25	Limit(W/kg): 1.6 W/kg
Highest Simultaneous SAR 10g(W/kg)	5G WIFI+BT	1.75	Limit(W/kg): 4.0 W/kg

Note:

1. This device is in compliance with Specific Absorption Rate (SAR) for general population or uncontrolled exposure limits (1.6W/kg as averaged over any 1 gram of tissue; specified in FCC 47 CFR part 2 (2.1093) and ANSI/IEEE C95.1-1992), and had been tested in accordance with the measurement methods and procedures specified in IEEE 1528-2013 and FCC KDB publications.
2. When the test result is a critical value, we will use the measurement uncertainty give the judgment result based on the 95% risk level.

1.2. RF exposure limits (ICNIRP Guidelines)

Human Exposure	Uncontrolled Environment General Population	Controlled Environment Occupational
Spatial Peak SAR*(Brain/Body)	**1.60mW/g**	8.00mW/g
Spatial Average SAR** (Whole Body)	0.08mW/g	0.40mW/g
Spatial Peak SAR***(Limbs)	4.00mW/g	20.00mW/g

Table 2: RF exposure limits

The limit applied in this test report is shown in bold letters

Notes:

* The Spatial Peak value of the SAR averaged over any 1 grams of tissue (defined as a tissue volume in the shape of a cube) and over the appropriate averaging time

** The Spatial Average value of the SAR averaged over the whole body.

*** The Spatial Peak value of the SAR averaged over any 1 grams of tissue (defined as a tissue volume in the shape of a cube) and over the appropriate averaging time. Uncontrolled Environments are defined as locations where there is the exposure of individuals who have no knowledge or control of their exposure. Controlled Environments are defined as locations where there is exposure that may be incurred by persons who are aware of the potential for exposure, (i.e. as a result if employment or occupation.)

1.3. Ratings and System Details

EUT Description	Mobile Phone
Model No.	CPH2477
Brand	OPPO
EUT Supports Radios application:	GSM850:TX 824MHz~849MHz PCS1900: TX 1850MHZ~1910MHz WCDMA Band V: TX 824MHz~849MHz LTE Band 5: TX 824MHz~849MHz LTE Band 7: TX 2500MHz~2570MHz LTE Band 38: TX 2570MHz~2620MHz LTE Band 41: TX 2496MHz~2690MHz 2.4GWiFi:2412MHz~2462MHz 5GWiFi: U-NII 1(5180~5240 MHz) U-NII 2A (5260~5320 MHz) U-NII 2C (5500~5700 MHz) U-NII 3(5745~5825 MHz) BT:2402MHz~2480MHz
Modulation Mode	GSM/GPRS/EGPRS AMR I RMC 12.2Kbps HSDPA HSUPA LTE: QPSK, 16QAM, 64QAM WLAN 2.4GHz : 802.11b/g/n HT20/HT40/VHT20/VHT40 WLAN 5GHz : 802.11a/n/ac HT20/HT40/VHT20/VHT40/VHT80 Bluetooth BR/EDR/L E
Battery information 1#	BLP915 4890/5000mAh(Rated/Typ) Lithium-ion Polymer Battery Sunwoda Electronic CO.,LTD.
Battery information 2#	BLP915 4890/5000mAh(Rated/Typ) Lithium-ion Polymer Battery Chongqing CosMX Battery Co.,Ltd
Battery information 3#	BLP915 4890/5000mAh(Rated/Typ) Lithium-ion Polymer Battery TWS Technology (Guangzhou) Limited
Hardware version:	11
Software version:	ColorOS V12.1

<table>
<tr><td>IMIE</td><td>864867060061451</td></tr>
<tr><td>Remark</td><td>This test report is for application of FCC ID: R9C-22263, which consists of reuse data of FCC ID: R9C-CPH2477.See the APPENDIX I Product Equality Declaration for the differences between the new model CPH2477 and the original model CPH2477.
Considering above changes, Band 41 all retested and the worst case.The other test data were performed in this test report No.: WT228001824.
<table>
<tr><th>Test Mode</th><th>Condition</th><th>FCC ID</th><th>Report Number</th><th>Remark</th></tr>
<tr><td>GSM 850
PCS 1900
WCDMA Band V
LTE Band
5, 7, 38
2.4G/5GWIFI
BT</td><td>Data reference:
1. SAR measurement procedure
2. Liquid test and System verification procedure
3. SAR measurement variability and uncertainty
4. Tune-up Limit
5. Conducted Power</td><td>R9C-CPH2477</td><td>WT228001824</td><td>--</td></tr>
<tr><td>LTE Band 41</td><td>New test:
1. SAR measurement procedure
2. Liquid test and System verification procedure
3. SAR measurement variability and uncertainty
4. Tune-up Limit
5.Conducted Power</td><td>--</td><td>--</td><td>--</td></tr>
</table>
</td></tr>
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1.4.Test specification(s)

FCC 47CFR Part 2(2.1093)	Radiofrequency Radiation Exposure Evaluation: Portable Devices
IEEE Std 1528-2013	Recommended Practice for Determining the Peak Spatial-Average Specific Absorption Rate(SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques
KDB 447498 D04v01	General RF Exposure Guidance No deviation
KDB 248227 D01v02r02	SAR Measurement Procedures for 802.11Transmitters
KDB 865664 D01v01r04	SAR Measurement 100 MHz to 6 GHz
KDB 865664 D02v01r02	RF Exposure Reporting
KDB 648474 D04v01r03	Handset SAR
KDB 941225 D01v03r01	3G SAR MEAUREMENT PROCEDURES
KDB 941225 D05v02r05	SAR Evaluation Consideration for LTEDevices
KDB 941225 D06v02r01	SAR Evaluation Procedures For PortableDevices With Wireless Router Capabilities
Note 1: The test item is not applicable. **Note 2:** Additions to, deviation, or exclusions from the method shall be judged in the "method determination" column of add, deviate or exclude from the specific method shall be explained in the "Remark" of the above table.	

1.5.List of Test and Measurement Instruments

	Equipment	Model No.	Serial No.	Manufacturer	Last Calibration Date	Period
☒	SAR test system	TX60L	F08/5AY8A1/A/01+F08/	SPEAG	NCR	NCR
☒	Electronic Data Transmitter	DAE4	1636	SPEAG	2021.12.30	1year
☒	Electronic Data Transmitter	DAE4	1637	SPEAG	2022.10.31	1year
☒	SAR Probe	EX3DV4	7623	SPEAG	2022.01.24	1year
☒	Software	85070	--	Agilent	--	--
☒	Software	DASY5	--	SPEAG	--	--
☒	System Validation Dipole,750MHz	D750V3	1103	SPEAG	2020.01.06	3year
☒	System Validation Dipole,835MHz	D835V2	4d141	SPEAG	2021.08.31	3year
☒	System Validation Dipole,900MHz	D900V2	1d077	SPEAG	2021.08.27	3year
☒	System Validation Dipole,1750MHz	D1750V2	1108	SPEAG	2020.01.03	3year
☒	System Validation Dipole,1900MHz	D1900V2	5d162	SPEAG	2021.09.01	3year
☒	System Validation Dipole,2450MHz	D2450V2	818	SPEAG	2021.08.26	3year
☒	System Validation Dipole,2600MHz	D2600V2	1074	SPEAG	2020.01.02	3year
☒	System Validation Dipole,2600MHz	D2600V2	1074	SPEAG	2023.01.05	3year
☒	System Validation Dipole,5GHz	D5GzV2	1185	SPEAG	2019.12.31	3year
☒	System Validation Dipole,5GHz	D5GzV2	1185	SPEAG	2022.12.09	3year
☒	Dielectric Probe Kit	85070E	MY44300455	Agilent	NCR	NCR
☒	Dual-directional coupler,0.10-2.0GHz	778D	MY48220198	Agilent	NCR	NCR

☒	Dual-directional coupler,2.00-18GHz	772D	MY46151160	Agilent	NCR	NCR
☒	Power Amplifier	ZVE-8G	SC280800926	MINI-CIRCUITS	NCR	NCR
☒	Power Amplifier	ZHL42W	81709	MINI-CIRCUITS	NCR	NCR
☒	Signal Generator	SMR20	100047	R&S	2022.02.19	1year
☒	Power Sensor	NRP-Z21	102626	R&S	2022.05.13	1year
☒	Power Sensor	NRP-Z21	102627	R&S	2022.05.13	1year
☒	Call Tester	CMU 200	100110	R&S	2022.05.18	1year
☒	Network Analyzer	E5071C	MY46109550	Agilent	2022.02.19	1Year
☒	Flat Phantom	ELI4.0	TP-1904	SPEAG	NCR	NCR
☒	Twin Phantom	SAM	TP-1504	SPEAG	NCR	NCR
☒	Wideband Radio Communication Tester	CMW500	125469	R&S	2022.05.18	1Year
☒	Precision Thermometer	--	--	--	2022.06.20	1Year

Table 3: List of Test and Measurement Equipment

Note: All the test equipments are calibrated once a year, except the dipoles, which are calibrated every three years. Moreover, we have self-calibration every year to the dipoles.

2. GENERAL INFORMATION

2.1. Report information

This report is not a certificate of quality; it only applies to the sample of the specific product/equipment given at the time of its testing. The results are not used to indicate or imply that they are application to the similar items. In addition, such results must not be used to indicate or imply that SMQ approves recommends or endorses the manufacture, supplier or use of such product/equipment, or that SMQ in any way guarantees the later performance of the product/equipment.

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2.2. Laboratory Accreditation and Relationship to Customer

The testing report were performed by the Shenzhen Academy of Metrology and qua lity Inspection EMC Laboratory (Guangdong EMC compliance testing center), in the ir facilities located at NETC Building, No.4 Tongfa Rd., Xili, Nanshan, Shenzhen, C hina. At the time of testing, Laboratory is accredited by the following organizations: China National Accreditation Service for Conformity Assessment (CNAS) accredits the Laboratory for conformance to FCC standards, EMC international standards an d EN standards. The Registration Number is CNAS L0579.The Laboratory is Accre dited Testing Laboratory of FCC with Designation number

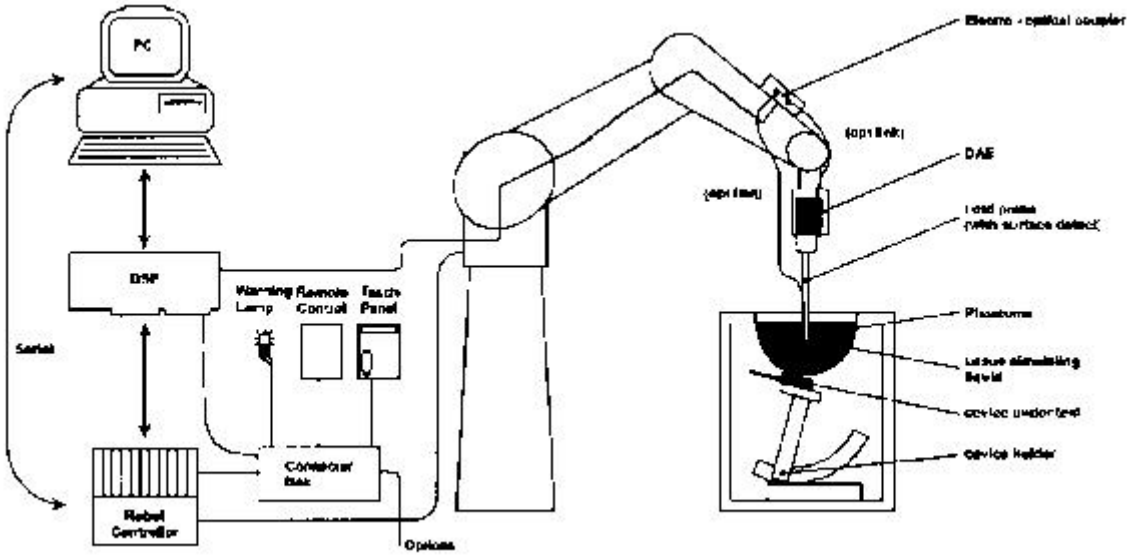
CN1165 and Site registration number 582918.The Laboratory is registered to perfor m emission tests with Innovation, Science and

Economic Development (ISED), and the registration number is 11177A.The Laborat ory is registered to perform emission tests with VCCI, and the registration number a re C-20048, G20076, R-20077, R-20078, and T-20047.

The Laboratory is Accredited Testing Laboratory of American Association for Labor atory Accreditation (A2LA) and certificate number is 3292.01.

3. SAR MEASUREMENT SYSTEM CONFIGURATION

3.1. SAR Measurement Set-up



The DASY5 system for performing compliance tests consists of the following items:

- A standard high precision 6-axis robot (Stäubli RX family) with controller and software. An arm extension for accommodating the data acquisition electronics (DAE).
- A dosimetric probe, i.e. an isotropic E-field probe optimized and calibrated for usage in tissue simulating liquid. The probe is equipped with an optical surface detector system.
- A data acquisition electronic (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.
- A unit to operate the optical surface detector which is connected to the EOC.

- The Electro-Optical Coupler (EOC) performs the conversion from the optical into a digital electric signal of the DAE. The EOC is connected to the DASY5 measurement server.
- The DASY5 measurement server, which performs all real-time data evaluation for field measurements and surface detection, controls robot movements and handles safety operation.
- A computer operating Windows XP.
- DASY5 software and SEMCAD data evaluation software.

Remote control with teach panel and additional circuitry for robot safety such as warning lamps, etc.

- The generic twin phantom enabling the testing of left-hand and right-hand usage.
- The device holder for handheld mobile phones.
- Tissue simulating liquid mixed according to the given recipes.
- System checks dipoles allowing validating the proper functioning of the system.
- Test environment
- The DASY5 measurement system is placed at the head end of a room with dimensions:

4.5 x 4 x 3 m³, the SAM phantom is placed in a distance of 1.3 m from the side walls and 1.1m from the rear wall.

Picture 1 of the photo documentation shows a complete view of the test environment.

3.2. Probe description

Isotropic E-Field Probe EX3DV4 for Dosimetric Measurements

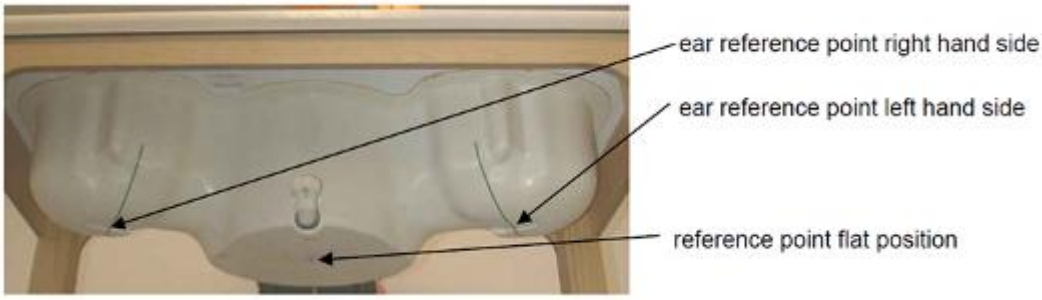
Construction	Symmetrical design with triangular core Interleaved sensors Built-in shielding against static charges PEEK enclosure material (resistant to organic solvents, e.g., DGBE)	
Calibration	ISO/IEC 17025 calibration service available.	
Frequency	10 MHz to >6 GHz (dosimetry); Linearity: ± 0.2 dB (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: ± 0.2 dB (noise:	

	typically<1 μW/g)	
Dimensions	Overall length: 337 mm (Tip: 20mm) Tip length: 2.5 mm (Body: 12mm) Typical distance from probe tip to dipole centers: 1mm	
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%.	

3.3. Phantom description

The used SAM Phantom meets the requirements specified in Edition 01-01 of Supplement C to OET Bulletin 65 for Specific Absorption Rate (SAR) measurements.

The phantom consists of a fibreglass shell integrated in a wooden table. It allows left-hand and right-hand head as well as body-worn measurements with a maximum liquid depth of 18 cm in head position and 22 cm in planar position (body measurements). The thickness of the Phantom shell is 2 mm +/- 0.1 mm.



ELI4 Phantom

Shell Thickness	2mm+/- 0.2mm
Filling Volume	Approximately 30 liters
Measurement Areas	Flat phantom
The ELI4 phantom is in intended for compliance testing of handheld and body-mounted wireless devices in the frequency range of 30MHz to 6GHz. ELI4 is fully compatible with the lastest draft of the standard IEC 62209-2 and all known tissue simulating liquids.	

The phantom shell material is resistant to all ingredients used in the tissue-equivalent liquid recipes. The shell of the phantom including ear spacers is constructed from low permittivity and low loss material, with a relative permittivity≤5 and a loss tangent ≤0.05.

3.4. Device holder description

The DASY5 device holder has two scales for device rotation (with respect to the body axis) and the device inclination (with respect to the line between the ear openings). The plane between the ear openings and the mouth tip has a rotation angle of 65°. The bottom plate contains three pair of bolts for locking the device holder. The device holder positions are adjusted to the standard measurement positions in the three sections. This device holder is used for standard mobile phones or PDA's only. If necessary an additional support of polystyrene material is used.

Larger DUT's (e.g. notebooks) cannot be tested using this device holder. Instead a support of bigger polystyrene cubes and thin polystyrene plates is used to position the DUT in all relevant positions to find and measure spots with maximum SAR values.

Therefore those devices are normally only tested at the flat part of the SAM.

4. SAR MEASUREMENT PROCEDURE

4.1. Scanning procedure

- The DASY5 installation includes predefined files with recommended procedures for measurements and system check. They are read-only document files and destined as fully defined but unmeasured masks. All test positions (head or body-worn) are tested with the same configuration of test steps differing only in the grid definition for the different test positions.
- The reference and drift measurements are located at the beginning and end of the batch process. They measure the field drift at one single point in the liquid over the complete procedure. The indicated drift is mainly the variation of the DUT's output power and should vary max. +/- 5 %.
- The surface check measurement tests the optical surface detection system of the DASY5 system by repeatedly detecting the surface with the optical and mechanical surface detector and comparing the results. The output gives the detecting heights of both systems, the difference between the two systems and the standard deviation of the detection repeatability. Air bubbles or refraction in the liquid due to separation of the sugar-water mixture gives poor repeatability (above ± 0.1mm). To prevent wrong results tests are only executed when the liquid is free of air bubbles. The difference between the optical surface detection and the actual surface depends on the probe and is specified with each probe. (It does not depend on the surface reflectivity or the probe angle to the surface within ± 30°.)
- The area scan measures the SAR above the DUT or verification dipole on a parallel plane to the surface. It is used to locate the approximate location of the peak SAR with 2D spline interpolation. The robot performs a stepped movement along one grid axis while the local electrical field strenth is measured by the probe. The probe is touching the surface of the SAM during acquisition of measurement values. The standard scan uses large grid spacing for faster measurement. Standard grid spacing for head measurements is 15 mm in x- and y- dimension(≤ 2GHz) , 12 mm in x- and y- dimension(2-4 GHz) and 10mm in x- and y- dimension(4-6GHz). If a finer resolution is needed, the grid spacing can be reduced. Grid spacing and orientation have no

influence on the SAR result. For special applications where the standard scan method does not find the peak SAR within the grid, e.g. mobile phones with flip cover, the grid can be adapted in orientation.

Results of this coarse scan are shown in Appendix B.

- A “zoom scan” measures the field in a volume around the 2D peak SAR value acquired in the previous “coarse” scan. This is a fine grid with maximum scan spatial resolution: Δxzoom, Δyzoom ≤2GHZ≤ 8 mm, 2-4GHz - ≤ 5 mm and 4-6 GHz-≤ 4 mm; Δzzoom ≤ 3GHz - ≤ 5 mm, 3-4 GHz- ≤ 4 mm and 4-6GHz-≤2mm where the robot additionally moves the probe along the z-axis away from the bottom of the Phantom. DASY5 is also able to perform repeated zoom scans if more than 1 peak is found during area scan. Test results relevant for the specified standard (see chapter 1.5.) are shown in table form in chapter 3.2.
- A Z-axis scan measures the total SAR value at the x-and y-position of the maximum SAR value found during the cube scan. The probe is moved away in z-direction from the bottom of the SAM phantom in 2mm steps. This measurement shows the continuity of the liquid and can – depending in the field strength- also show the liquid depth. A z-axis scan of the measurement with maximum SAR value is shown in Appendix B.

The following table summarizes the area scan and zoom scan resolutions per FCC KDB 865664D01:

Frequency	Maximum Area Scan resolution (Δxarea, Δyarea)	Maximum Zoom Scan spatial resolution(Δxzoom Δyzoom)	Maximum Zoom Scan spatial resolution			Minimum zoom scan volume (x,y,z)
			Uniform Grid	Graded Grad		
			Δzzoom(n)	Δzzoom(1)	Δzzoom(n>1)	
≤2GHz	≤15mm	≤8mm	≤5mm	≤4mm	≤1.5*Δzzoom(n-1)	≥30mm
2-3GHz	≤12mm	≤5mm	≤5mm	≤4mm	≤ 1.5*Δzzoom(n-1)	≥30mm
3-4GHz	≤10mm	≤5mm	≤4mm	≤3mm	≤ 1.5*Δzzoom(n-1)	≥28mm
4-5GHz	≤10mm	≤4mm	≤3mm	≤2.5mm	≤ 1.5*Δzzoom(n-1)	≥25mm

5-6GHz	≤10mm	≤4mm	≤2mm	≤2mm	≤ 1.5*Δzzoom(n-1)	≥22mm

Spatial Peak SAR Evaluation

- The spatial peak SAR - value for 1 and 10 g is evaluated after the Cube measurements have been done. The bases of the evaluation are the SAR values measured at the points of the fine cube grid consisting of 5 x 5 x 7 points (with 8mm horizontal resolution) or 7 x 7 x 7 points (with 5mm horizontal resolution).
- The algorithm that finds the maximal averaged volume is separated into three different stages.
- The data between the dipole center of the probe and the surface of the phantom are extrapolated. This data cannot be measured since the center of the dipole is 2.7 mm away from the tip of the probe and the distance between the surface and the lowest measuring point is about 1 mm (see probe calibration sheet). The extrapolated data from a cube measurement can be visualized by selecting 'Graph Evaluated'.
- The maximum interpolated value is searched with a straight-forward algorithm. Around this maximum the SAR - values averaged over the spatial volumes (1g or 10 g) are computed using the 3d-spline interpolation algorithm. If the volume cannot be evaluated (i.e., if a part of the grid was cut off by the boundary of the measurement area) the evaluation will be started on the corners of the bottom plane of the cube.
- All neighboring volumes are evaluated until no neigh boring volume with a higher average value is found.
- Extrapolation
- The extrapolation is based on a least square algorithm [W. Gander, Computermathematik, p.168-180]. Through the points in the first 3 cm along the z-axis, polynomials of order four are calculated. These polynomials are then used to evaluate the points between the surface and the probe tip. The points, calculated from the surface, have a distance of 1 mm from each other.

Interpolation

- The interpolation of the points is done with a 3d-Spline. The 3d-Spline is composed of three one-dimensional splines with the "Not a knot"-condition [W. Gander, Computermathematik, p.141-150] (x, y and z -direction) [Numerical Recipes in C, Second Edition, p.123ff].
- Volume Averaging
- At First the size of the cube is calculated. Then the volume is integrated with the trapezoidal

algorithm. 8000 points (20x20x20) are interpolated to calculate the average.

- Advanced Extrapolation
- DASY5 uses the advanced extrapolation option which is able to compansate boundary effects on E-field probes.

6.1.1. Data Storage and Evaluation

Data Storage

The DASY5 software stores the acquired data from the data acquisition electronics as raw data (in microvolt readings from the probe sensors), together with all necessary software parameters for the data evaluation (probe calibration data, liquid parameters and device frequency and modulation data) in measurement files with the extension DAE4. The software evaluates the desired unit and format for output each time the data is visualized or exported. This allows verification of the complete software setup even after the measurement and allows correction of incorrect parameter settings. For example, if a measurement has been performed with a wrong crest factor parameter in the device setup, the parameter can be corrected afterwards and the data can be re-evaluated.

The measured data can be visualized or exported in different units or formats, depending on the selected probe type ([V/m], [A/m], [°C], [mW/g], [mW/cm²], [dBrel], etc.). Some of these units are not available in certain situations or show meaningless results, e.g., a SAR output in a lossless media will always be zero. Raw data can also be exported to perform the evaluation with other software packages.

Data Evaluation by SEMCAD

The SEMCAD software automatically executes the following procedures to calculate the field units from the microvolt readings at the probe connector. The parameters used in the evaluation are stored in the configuration modules of the software:

Probe parameters:	- Sensitivity	Normi, ai0, ai1, ai2
	- Conversion factor	ConvFi
	- Diode compression point	Dcpi
Device parameters:	- Frequency	f
	- Crest factor	cf
Media parameters:	- Conductivity	σ
	- Density	ρ

These parameters must be set correctly in the software. They can be found in the component documents or they can be imported into the software from the configuration files issued for the DASY5 components. In the direct measuring mode of the multimeter option, the parameters of the actual system setup are used. In the scan visualization and export modes, the parameters stored in the corresponding document files are used.

The first step of the evaluation is a linearization of the filtered input signal to account for the compression characteristics of the detector diode. The compensation depends on the input signal, the diode type and the DC-transmission factor from the diode to the evaluation electronics.

If the exciting field is pulsed, the crest factor of the signal must be known to correctly compensate for peak power. The formula for each channel can be given as:

$$V_i = U_i + U_{i2} \bullet cf/dcp_i$$

with V_i = compensated signal of channel i (i = x, y, z)

U_i = input signal of channel i (i = x, y, z)

cf = crest factor of exciting field (DASY parameter)

dcp_i = diode compression point (DASY parameter)

From the compensated input signals the primary field data for each channel can be evaluated:

E-field probes: $E_i = (V_i / Norm_i \bullet ConvF)^{1/2}$

H-field probes: $H_i = (V_i)^{1/2} \bullet (a_{i0} + a_{i1}f + a_{i2}f^2)/f$

with V_i = compensated signal of channel i (i = x, y, z)

$Norm_i$ = sensor sensitivity of channel i (i = x, y, z)

[mV/(V/m)2] for E-field Probes

ConvF = sensitivity enhancement in solution

a_{ij} = sensor sensitivity factors for H-field probes

f = carrier frequency [GHz]

Ei = electric field strength of channel i in V/m

Hi = magnetic field strength of channel i in A/m

The RSS value of the field components gives the total field strength (Hermitian magnitude):

Etot = (Ex2 + EY2 + Ez2)1/2

The primary field data are used to calculate the derived field units.

SAR = (Etot2 • σ) / (ρ • 1000)

with SAR = local specific absorption rate in mW/g

Etot = total field strength in V/m

σ = conductivity in [mho/m] or [Siemens/m]

ρ = equivalent tissue density in g/cm3

Note that the density is normally set to 1 (or 1.06), to account for actual brain density rather than the density of the simulation liquid. The power flow density is calculated assuming the excitation field to be a free space field.

Ppwe = Etot2 / 3770 or Ppwe = Htot2 • 37.7

with Ppwe = equivalent power density of a plane wave in mW/cm2

Etot = total electric field strength in V/m

Htot = total magnetic field strength in A/m

7. SYSTEM VERIFICATION PROCEDURE

7.1. Tissue Verification

The simulating liquids should be checked at the beginning of a series of SAR measurements to determine of the dielectric parameter are within the tolerances of the specified target values. The measured conductivity and relative permittivity should be within ±5% of the target values.

The following materials are used for producing the tissue-equivalent materials

Ingredient (% by weight)	Head Tissue				
	750	835	1750	1900	2450
Water	34.4	41.45	52.64	55.24	62.7
Salt(NaCl)	0.79	1.45	0.36	0.306	0.5
Sugar	64.81	56.0	0.0	0.0	0.0
HEC	0.0	1.0	0.0	0.0	0.0
Bactericide	0.0	0.1	0.0	0.0	0.0
Triton X-100	0.0	0.0	0.0	0.0	0.0
DGBE	0.0	0.0	47.0	44.54	36.8

Table 4 : Tissue Dielectric Properties

Salt: 99+% Pure Sodium Chloride; Sugar”98+% Pure Sucrose; Water: De-ionized, 16MΩ+ resistivity

HEC: Hydroxyethyl Cellulose; DGBE: 99+% Di(ethylene glycol) butyl ether, [2-(2-butoxyethoxy)ethanol]

Triton X-100(ultra pure): Polyethylene glycol mono[4-(1,1,3,3-tetramethylbutyl)phenyl]ether

Tissue-equivalent liquid measurements:

f/MHz	Date Tested	Dielectric Parameters	Target	Tolerance (%)	Temp (ºC)
750	2022.08.02	εr=42.22	41.9 (39.81~44.00)	±5	20
		σ=0.91	0.89 (0.85~0.93)		
835	2022.08.03	εr =40.70	41.5 (39.43~43.58)	±5	20
		σ=0.88	0.90 (0.86~0.95)		
1750	2022.08.05	εr =40.40	40.1 (38.10~42.11)	±5	20
		σ=1.33	1.37 (1.30~1.44)		
1900	2022.08.07	εr =40.44	40.0 (38.00~42.00)	±5	20
		σ=1.37	1.40 (1.33~1.47)		
2450	2022.08.12	εr =38.76	39.2 (37.24~41.16)	±5	20
		σ=1.84	1.80 (1.71~1.89)		
2600	2022.08.09	εr =38.23	39.0 (37.05~40.95)	±5	20
		σ=2.03	1.96 (1.86~2.06)		
5.25G	2022.08.15	εr =35.33	36.0 (34.20~37.80)	±5	20
		σ=4.70	4.66 (4.43~4.89)		
5.6G	2022.08.15	εr =36.05	35.5 (33.82~37.38)	±5	20
		σ=5.19	5.07 (4.71~5.21)		
5.75G	2022.08.15	εr =35.72	35.3	±5	20

			(33.54~37.07)		
		σ=5.15	5.27 (5.01~5.53)		
5.25G	2022.08.20	εr =36.23	36.0 (34.20~37.80)	±5	20
		σ=4.69	4.66 (4.43~4.89)		
5.6G	2022.08.20	εr =36.00	35.5 (33.82~37.38)	±5	20
		σ=5.08	5.07 (4.71~5.21)		
5.75G	2022.08.20	εr =35.88	35.3 (33.54~37.07)	±5	20
		σ=5.43	5.27 (5.01~5.53)		
2600	2023.01.20	εr =39.03	39.0 (37.05~40.95)	±5	20
		σ=2.00	1.96 (1.86~2.06)		
5600	2023.01.20	εr =35.89	35.5 (33.82~37.38)	±5	20
		σ=5.04	5.07 (4.71~5.21)		
5750	2023.01.20	εr =35.45	35.3 (33.54~37.07)	±5	20
		σ=5.23	5.27 (5.01~5.53)		

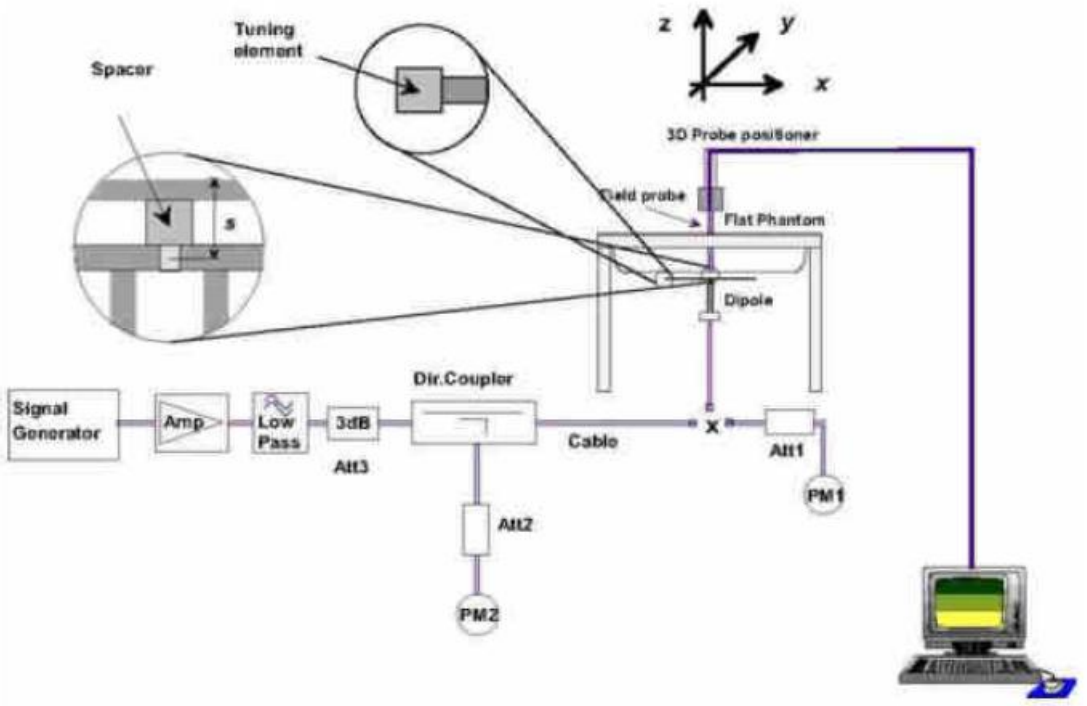
System check, Tissue-equivalent liquid:

f/MHz	Date Tested	power (mW)	SAR(W/kg), 1g	SAR(W/kg), 10g	Target 1g	Target 10g	Tolerance (%)	Temp (ºC)
750	2022.08.02	250	8.64	5.72	8.66 (7.79 ~9.52)	5.83 (5.24 ~6.41)	±10	20
835	2022.08.03	250	9.08	6.08	9.58 (8.62 ~10.53)	6.19 (5.57 ~6.80)	±10	20
1750	2022.08.05	250	35.96	19.00	35.70 (32.13 ~39.27)	18.80 (16.92 ~20.68)	±10	20
1900	2022.08.07	250	39.44	20.04	39.70 (35.73 ~43.67)	20.20 (18.18 ~22.22)	±10	20
2450	2022.08.12	250	51.60	23.68	52.20 (46.98 -57.42)	23.80 (21.42 ~26.18)	±10	20
2600	2022.08.09	250	57.32	25.52	56.90 (51.21 ~62.59)	25.20 (22.68 ~27.72)	±10	20
5.25G	2022.08.15	100	73.60	21.20	76.50 (68.85 ~84.15)	21.80 (19.62~23.98)	±10	20
5.6G	2022.08.15	100	81.20	23.00	80.20 (72.18 ~88.22)	22.80 (20.52 ~25.08)	±10	20
5.75G	2022.08.15	100	78.40	22.00	78.20 (70.38 ~86.02)	22.20 (19.98 ~24.42)	±10	20
5.25G	2022.08.20	100	75.90	22.10	76.50 (68.85 ~84.15)	21.80 (19.62~23.98)	±10	20
5.6G	2022.08.20	100	78.60	22.40	80.20 (72.18 ~88.22)	22.80 (20.52 ~25.08)	±10	20
5.75G	2022.08.20	100	75.60	21.30	78.20 (70.38 ~86.02)	22.20 (19.98 ~24.42)	±10	20
2600	2023.01.20	250	58.32	25.88	56.90 (51.21 ~62.59)	25.20 (22.68 ~27.72)	±10	20
5600	2023.01.20	100	79.60	22.50	80.20 (72.18 ~88.22)	22.80 (20.52 ~25.08)	±10	20
5750	2023.01.20	100	75.40	21.40	78.20 (70.38 ~86.02)	22.20 (19.98 ~24.42)	±10	20

System Checking

The manufacturer calibrates the probes annually. A system check measurement was made following the determination of the dielectric parameters of the tissue-equivalent

liquid, using the dipole validation kit. A power level was supplied to the dipole antenna, which was placed under the flat section of the twin SAM phantom.



The system checking results (dielectric parameters and SAR values) are given in the table below.

The system check is performed for verifying the accuracy of the complete measurement system and performance of the software. The system check is performed with tissue equivalent material according to IEEE P1528 (described above). The following table shows system check results for all frequency bands and tissue liquids used during the tests (Graphic Plot(s)see Appendix A).

8. SAR MEASUREMENT VARIABILITY AND UNCERTAINTY

8.1. SAR measurement variability

Per KDB865664 D01 SAR measurement 100MHz to 6GHz v01r04, SAR measurement variability must be assessed for each frequency band, which is determined by the SAR probe calibration point and tissue-equivalent medium used for the device measurements. The additional measurements are repeated after the completion of all measurement requiring the same head or body tissue-equivalent medium in a frequency band. The test device should be returned to ambient conditions (normal room temperature) with the battery fully charged before it is re-mounted on the device holder for the repeated measurement(s) to minimize any unexpected variations in the repeated results.

1) Repeated measurement is not required when the original highest measured SAR is <0.80 W/kg; step2) through 4) do not apply.
2) When the original highest measured SAR is ≥0.8 W/kg , repeat that measurement once.
3) Perform a second repeated measurement only if the ratio of largest to smallest SAR for the original and first repeated measurements is >1.20 or when the original or repeated measurement is ≥1.45 W/kg(~10% from the 1-g SAR limit).
4) Perform a third repeated measurement only if the original, first or second repeated measurement is ≥1.5W/kg and the ratio of largest to smallest SAR for the original, first and second repeated measurements is >1.20.

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.

8.2. SAR measurement uncertainty

Per KDB865664 D01 SAR Measurement 100MHz to 6GHz v01r03, when the highest measured 1-g SAR within a frequency band is <1.5W/kg, the extensive SAR measurement uncertainty analysis described in IEEE Std 1528-2003 is not required in SAR reports submitted for equipment approval. The equivalent ratio(1.5/1.6) is applied to

extremity and occupational exposure conditions.

9. Test Configuration

The DUT is tested using a CMU 200 or E5515C communications tester as controller unit to set test channels and maximum output power to the DUT, as well as for measuring the conducted peak power.

Test positions as described in the tables above are in accordance with the specified test standard.

GSM Test Configuration

SAR tests for GSM 850 and PCS 1900, a communication link is set up with a System Simulator (SS) by air link. Using CMU 200 or E5515C the power level is set to “5” for GSM 850, set to “0” for PCS 1900. Since the GPRS class is 12 for this EUT, it has at most 4 timeslots in uplink and at most 4 timeslots in downlink, the maximum total timeslots is 5.

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:

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

WCDMA Test Configuration

The following tests were completed according to the test requirements outlined in section 5.2 of the 3GPP TS34.121-1 specification. The EUT supports power Class 3, which has a nominal maximum output power of 24 dBm (+1.7/-3.7).

	Mode	Rel99
	Subtest	---

WCDMA General Settings	Loopback Mode	Test Mode 1
	Rel99 RMC	12.2kbps RMC
	Power Control Algorithm	Algorithm2
	β_c / β_d	8/15

Handsets with Release 5 HSDPA

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 reported SAR body-worn accessory exposure configuration in 12.2 kbps RMC. Handsets 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.

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

Note1: Δ_{ACK}, Δ_{NACK} and Δ_{CQI}= 8 $\Leftrightarrow A_{hs} = \beta_{hs}/\beta_c$=30/15 $\Leftrightarrow \beta_{hs}$=30/15*$\beta_c$

Note2: CM=1 for β_c/β_d =12/15, β_{hs}/β_c=24/15.

Note3: For subtest 2 the $\beta_c\beta_d$ ratio of 12/15 for the TFC during the measurement period(TF1,TF0) is achieved by setting the signaled gain factors for the reference TFC (TFC1,TF1) to β_c=11/15 and β_d=15/15.

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 reported 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 Handset’ and ‘Release 5 HSDPA Data Devices’ sections of this document

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 $\Leftrightarrow$ $A_{hs} = \beta_{hs}/\beta_c$ = 30/15 $\Leftrightarrow$ β_{hs}= 30/15 *β_c.
Note 2: CM = 1 for βc/βd =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 βc/βd 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 βc = 10/15 and βd = 15/15.
Note 4: For subtest 5 the βc/βd 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 βc = 14/15 and βd = 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: βed can not be set directly; it is set by Absolute Grant Value.

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

HSPA, HSPA+ and DC-HSDPA Test Configuration

measurement is required for HSPA, HSPA+ or DC-HSDPA, a KDB inquiry is required to confirm that the wireless mode configurations in the test setup have remained stable throughout the SAR measurements.35 Without prior KDB confirmation to determine the SAR results are acceptable, a PBA is required for TCB approval. SAR test exclusion for HSPA, HSPA+ and DC-HSDPA is determined according to the following:

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

2) SAR is required for Rel. 7 HSPA+ when SAR is required for Rel. 6 HSPA; otherwise, the 3G SAR test reduction procedure is applied to (Up antenna) HSPA+ with 12.2 kbps RMC as the primary mode.36 Power is measured for HSPA+ that supports Up antenna 16 QAM according to configurations in Table C.11.1.4 of 3GPP TS 34.121-1 to determine SAR test reduction.

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

acceptable.

4) Regardless of whether a PBA is required, the following information must be verified and included in the SAR report for devices supporting HSPA, HSPA+ or DC-HSDPA: a) The output power measurement results and applicable release version(s) of 3GPP TS 34.121.

i) Power measurement difficulties due to test equipment setup or availability must be resolved between the grantee and its test lab.

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

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

5) When SAR measurement is required, the test configurations, procedures and power measurement results must be clearly described to confirm that the required test parameters are used, including E-TFCI and AG index stability and output power conditions.

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

LTE Test Configuration

SAR for LTE band exposure configurations is measured according to the procedures of KDB 941225 D05 SAR for LTE Devices v02r05. The CMW500 WideBand Radio Communication Tester was used for LTE output power measurements and SAR testing. Closed loop power control was used so the UE transmits with maximum output power during SAR testing.SAR test were performed with the same number of RB and RB offsets transmitting on all TTI frames (Maximum TTI)

1) Spectrum Plots for RB configurations

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

2) MPR

When MPR is implemented permanently within the UE, regardless of network

requirements, only those RB configurations allowed by 3GPP for the channel bandwidth and modulation combinations may be tested with MPR active. Configurations with RB allocations less than the RB thresholds required by 3GPP must be tested without MPR.
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:

Maximun Power Reduction(MRP) 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

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	
		rmal cyclic prefix in uplink	Extended cyclic prefix in uplink		Normal cyclic prefix in uplink	Extended cyclic prefix in uplink
0	6592 T_S	2192 T_S	2560 T_S	7680 T_S	2192 T_S	2560 T_S
1	19760 T_S			20480 T_S		
2	21952 T_S			23040 T_S		
3	24144 T_S			25600 T_S		
4	26336 T_S			7680 T_S	4384 T_S	5120 T_S
5	6592 T_S	4384 T_S	5120 T_S	20480 T_S		
6	19760 T_S			23040 T_S		
7	21952 T_S			12800 T_S		

8	24144 T_S			-	-	-
9	13168 T_S			-	-	-

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

Calculated Duty Cycle = Extended cyclic prefix in uplink x (Ts) x # of S + # of U

Example for Calculated Duty Cycle for Uplink-Downlink Configuration 0:

Calculated Duty Cycle = 5120 x [1/(15000 x 2048)] x 2 + 6 ms = 63.33%

Where Ts = 1/(15000 x 2048) seconds

LTE Test Configuration

SAR for LTE band exposure configurations is measured according to the procedures of KDB 941225 D05 SAR for LTE Devices v02r05. The CMW500 WideBand Radio Communication Tester was used for LTE output power measurements and SAR testing. Closed loop power control was used so the UE transmits with maximum output power during SAR testing.SAR test were performed with the same number of RB and RB offsets transmitting on all TTI frames (Maximum TTI)

1) Spectrum Plots for RB configurations

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

2) MPR

When MPR is implemented permanently within the UE, regardless of network requirements, only those RB configurations allowed by 3GPP for the channel bandwidth

and modulation combinations may be tested with MPR active. Configurations with RB allocations less than the RB thresholds required by 3GPP must be tested without MPR. 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:

Maximun Power Reduction(MRP) 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

Configuration of special subframe (lengths of DwPTS/GP/UpPTS)

pecial subframe configuration	Normal cyclic prefix in downlink			Extended cyclic prefix in downlink		
	DwPTS	UpPTS		DwPTS	UpPTS	
		ɔrmal cyclic prefix in uplink	Extended cyclic prefix in uplink		Normal cyclic prefix in uplink	Extended cyclic prefix in uplink
0	6592 T_S	2192 T_S	2560 T_S	7680 T_S	2192 T_S	2560 T_S
1	19760 T_S			20480 T_S		
2	21952 T_S			23040 T_S		
3	24144 T_S			25600 T_S		
4	26336 T_S			7680 T_S	4384 T_S	5120 T_S
5	6592 T_S	4384 T_S	5120 T_S	20480 T_S		
6	19760 T_S			23040 T_S		
7	21952 T_S			12800		

				T_S		
8	$24144\,T_S$			-	-	-
9	$13168\,T_S$			-	-	-

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

Calculated Duty Cycle = Extended cyclic prefix in uplink x (Ts) x # of S + # of U

Example for Calculated Duty Cycle for Uplink-Downlink Configuration 0:

Calculated Duty Cycle = 5120 x [1/(15000 x 2048)] x 2 + 6 ms = 63.33%

Where Ts = 1/(15000 x 2048) seconds

3) **A-MPR**

A-MPR(Additional MPR) has been disabled for all SAR tests by using Network Signalling Value of “NS_01”on the base station simulator.

4) LTE procedures for SAR testing

A) Largest channel bandwidth standalone SAR test requirements

i) 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 ≤ 0.8W/kg, testing of the remaining RB offset configurations and required test channels is not required for 1RB 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.

ii) QPSK with 50% RB allocation

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

iii) 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 i) and ii) 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.

iv) Higher order modulations

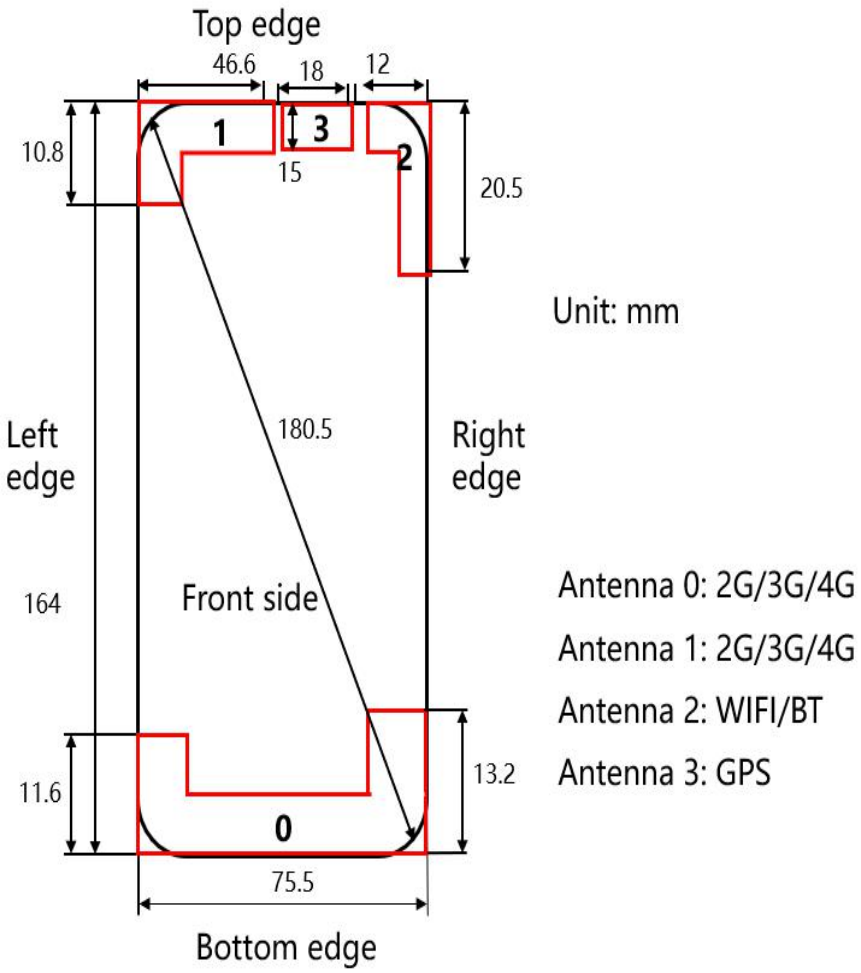
For each modulation besides QPSK; e.g., 16-QAM, 64-QAM, apply the QPSK procedures in above sections to determine the QAM configurations that may need SAR measurement. For each configuration identified as required for testing, SAR is required only when the highest maximum output power for the configuration 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.

B) 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.

10. TEST RESULTS

10.1. EUT Antenna Locations



The WWLAN part of this product has two antennas. It only supports single transmission, but does not support MIMO.

ANT0	TX/RX :GSM850/1900 WCDMA V LTE 5/7/38/41
ANT1	TX/RX :GSM850/1900 WCDMA V LTE 5/7/38/41
ANT2	TX/RX WIFI 2.4G/5G Bluetooth
ANT3	GPS

11. TUNE-UP LIMIT

11.1. Tune-up Limit

State1:Single cell(Body)

State2:Single cell(Head)

State3:Simultaneous launch (Body:2.4G wifi+WWAN，5G wifi+WWAN，BT+WWAN)

State4:Simultaneous launch (Head:2.4G wifi+WWAN，5G wifi+WWAN，BT+WWAN)

State5:Simultaneous launch (Body:5G wifi+WWAN+BT)

State6:Simultaneous launch (Head:5G wifi+WWAN+BT)

Band	GSM 850 Original Tune up/State1(Ant1)	GSM 850 State2(Ant1)//State3(Ant1)/State5(Ant1)	GSM 850 State4(Ant1)/State6(Ant1)	unit
GPRS/GSM (GMSK, 1 Tx slot)	32.5 [-1.0~+1.0]	31.5 [-1.0~+1.0]	29.0 [-1.0~+1.0]	dBm
GPRS/GSM(GMSK,2Tx slots)	29.5 [-1.0~+1.0]	28.5 [-1.0~+1.0]	29.0 [-1.0~+1.0]	dBm
GPRS/GSM(GMSK,3Tx slots)	27.5 [-1.0~+1.0]	26.5 [-1.0~+1.0]	26.0 [-1.0~+1.0]	dBm
GPRS/GSM (GMSK,4Tx slots)	26.5 [-1.0~+1.0]	25.5 [-1.0~+1.0]	24.0 [-1.0~+1.0]	dBm
EDGE (8PSK, 1 Tx slot)	27.0 [-1.0~+1.0]	26.0 [-1.0~+1.0]	23.0 [-1.0~+1.0]	dBm
EDGE (8PSK, 2 Tx slots)	25.0 [-1.0~+1.0]	24.0 [-1.0~+1.0]	23.5 [-1.0~+1.0]	dBm
EDGE (8PSK, 3 Tx slots)	23.0 [-1.0~+1.0]	22.0 [-1.0~+1.0]	21.5 [-1.0~+1.0]	dBm
EDGE (8PSK, 4 Tx slots)	22.5 [-1.0~+1.0]	21.5 [-1.0~+1.0]	19.5 [-1.0~+1.0]	dBm

Band	GSM1900 Original Tune up/State1(Ant1)	GSM1900 State3(Ant0)//State5(Ant0)	GSM1900 State2(Ant1)	GSM1900 State4(Ant1)/State6(Ant1)	GSM1900 State3(Ant1)/State5(Ant1)	unit
GPRS/GSM (GMSK, 1 Tx slot)	29.5 [-1.0~+1.0]	28.5 [-1.0~+1.0]	25.0 [-1.0~+1.0]	22.5 [-1.0~+1.0]	28.0 [-1.0~+1.0]	dBm
GPRS/GSM(GMSK,2Tx slots)	26.5 [-1.0~+1.0]	25.5 [-1.0~+1.0]	22.0 [-1.0~+1.0]	19.5 [-1.0~+1.0]	25.0 [-1.0~+1.0]	dBm
GPRS/GSM(GMSK,3Tx slots)	24.5 [-1.0~+1.0]	23.5 [-1.0~+1.0]	20.0 [-1.0~+1.0]	17.5 [-1.0~+1.0]	23.0 [-1.0~+1.0]	dBm
GPRS/GSM (GMSK,4Tx slots)	23.5 [-1.0~+1.0]	22.5 [-1.0~+1.0]	19.0 [-1.0~+1.0]	16.5 [-1.0~+1.0]	22.0 [-1.0~+1.0]	dBm
EDGE (8PSK, 1 Tx slot)	26.0 [-1.0~+1.0]	25.0 [-1.0~+1.0]	21.5 [-1.0~+1.0]	19.0 [-1.0~+1.0]	24.5 [-1.0~+1.0]	dBm
EDGE (8PSK, 2 Tx slots)	24.0 [-1.0~+1.0]	23.0 [-1.0~+1.0]	19.5 [-1.0~+1.0]	17.0 [-1.0~+1.0]	22.5 [-1.0~+1.0]	dBm
EDGE (8PSK, 3 Tx slots)	22.0 [-1.0~+1.0]	21.0 [-1.0~+1.0]	17.5 [-1.0~+1.0]	15.0 [-1.0~+1.0]	20.5 [-1.0~+1.0]	dBm
EDGE (8PSK, 4 Tx slots)	21.5 [-1.0~+1.0]	20.5 [-1.0~+1.0]	17.0 [-1.0~+1.0]	14.5 [-1.0~+1.0]	20.0 [-1.0~+1.0]	dBm

Band		WCDMA Band V Original Tune up/State1(Ant1)	WCDMA Band V State2(Ant1)	WCDMA Band V State4(Ant1)/State6(Ant1)	WCDMA Band V State3(Ant0)/State5(Ant0)	WCDMA Band V State3(Ant1)/State5(Ant1)	unit
WCDMA		23.9 [-0.8~+0.8]	21.9[-0.8~+0.8]	19.4[-0.8~+0.8]	23.4[-0.8~+0.8]	22.9[-0.8~+0.8]	dBm
HSDPA	Subtest 1	23.0 [-0.8~+0.8]	21.0[-0.8~+0.8]	18.5[-0.8~+0.8]	22.5[-0.8~+0.8]	22[-0.8~+0.8]	dBm
	Subtest 2	23.0 [-0.8~+0.8]	21.0[-0.8~+0.8]	18.5[-0.8~+0.8]	22.5[-0.8~+0.8]	22[-0.8~+0.8]	dBm
	Subtest 3	22.5 [-0.8~+0.8]	20.5[-0.8~+0.8]	18[-0.8~+0.8]	22[-0.8~+0.8]	21.5[-0.8~+0.8]	dBm
	Subtest 4	22.5 [-0.8~+0.8]	20.5[-0.8~+0.8]	18[-0.8~+0.8]	22[-0.8~+0.8]	21.5[-0.8~+0.8]	dBm
HSUPA	Subtest 1	22.0 [-0.8~+0.8]	20.0[-0.8~+0.8]	17.5[-0.8~+0.8]	21.5[-0.8~+0.8]	21[-0.8~+0.8]	dBm
	Subtest 2	22.0 [-0.8~+0.8]	20.0[-0.8~+0.8]	17.5[-0.8~+0.8]	21.5[-0.8~+0.8]	21[-0.8~+0.8]	dBm
	Subtest 3	23.0 [-0.8~+0.8]	21.0[-0.8~+0.8]	18.5[-0.8~+0.8]	22.5[-0.8~+0.8]	22[-0.8~+0.8]	dBm
	Subtest 4	21.5 [-0.8~+0.8]	19.5[-0.8~+0.8]	17[-0.8~+0.8]	21[-0.8~+0.8]	20.5[-0.8~+0.8]	dBm
	Subtest 5	23.0 [-0.8~+0.8]	21.0[-0.8~+0.8]	18.5[-0.8~+0.8]	22.5[-0.8~+0.8]	22[-0.8~+0.8]	dBm

The LTE Band 5power adjust procedure

LTE Band 5	Original Tune up/State1(Ant 1)	State2(Ant1)	State3(Ant0)/ State5(Ant0)	State3(Ant1)/ State5(Ant1)	State4(Ant1)/ State6(Ant1)	unit
1.4/3/5/10 MHz QPSK	23.5[-0.8~+0.8]	22.0[-0.8~+0.8]	23.0[-0.8~+0.8]	22.5[-0.8~+0.8]	19.5[-0.8~+0.8]	dBm
1.4/3/5/10 MHz 16QAM	22.5[-0.8~+0.8]	21.0[-0.8~+0.8]	22.0[-0.8~+0.8]	21.5[-0.8~+0.8]	18.5[-0.8~+0.8]	dBm
1.4/3/5/10/15/20 MHz 64QAM	21.5[-0.8~+0.8]	20.0[-0.8~+0.8]	21.0[-0.8~+0.8]	20.5[-0.8~+0.8]	17.5[-0.8~+0.8]	dBm

The LTE Band 7power adjust procedure

LTE Band 7	Original Tune up	State1(Ant 0)	State1(Ant 1)	State2(Ant 1)	State3(Ant 0)/State5(A nt0)	State3(Ant 1)/State5(A nt1)	State4(Ant 1)/State6(A nt1)	unit
1.4/3/5/10/15/20 MHz QPSK	22.8[-0.8~+0.8]	20.3[-0.8~+0.8]	19.8[-0.8~+0.8]	16.8[-0.8~+0.8]	17.8[-0.8~+0.8]	17.3[-0.8~+0.8]	14.3[-0.8~+0.8]	dBm
1.4/3/5/10/15/20 MHz 16QAM	21.8[-0.8~+0.8]	19.3[-0.8~+0.8]	18.9[-0.8~+0.8]	15.8[-0.8~+0.8]	16.8[-0.8~+0.8]	16.3[-0.8~+0.8]	13.3[-0.8~+0.8]	dBm
1.4/3/5/10/15/20 MHz 64QAM	20.8[-0.8~+0.8]	18.3[-0.8~+0.8]	17.9[-0.8~+0.8]	14.8[-0.8~+0.8]	15.8[-0.8~+0.8]	15.3[-0.8~+0.8]	12.3[-0.8~+0.8]	dBm

The LTE Band 38 power adjust procedure

LTE Band 38	Original Tune up/State2(Ant0)/State4(Ant0)/State6(Ant0)/State1(Ant1)	State1(Ant0)	State2(Ant1)	State3(Ant0)/State5(Ant0)	State3(Ant1)/State5(Ant1)	State4(Ant1)/State6(Ant1)	unit
1.4/3/5/10/15/20 MHz QPSK	23.0[-0.8~+0.8]	22.0[-0.8~+0.8]	20.0[-0.8~+0.8]	20.0[-0.8~+0.8]	21.0[-0.8~+0.8]	17.5[-0.8~+0.8]	dBm
1.4/3/5/10/15/20 MHz 16QAM	22.0[-0.8~+0.8]	21.0[-0.8~+0.8]	19.0[-0.8~+0.8]	19.0[-0.8~+0.8]	20.0[-0.8~+0.8]	16.5[-0.8~+0.8]	dBm
1.4/3/5/10/15/20 MHz 64QAM	21.0[-0.8~+0.8]	20.0[-0.8~+0.8]	18.0[-0.8~+0.8]	18.0[-0.8~+0.8]	19.0[-0.8~+0.8]	15.5[-0.8~+0.8]	dBm

The LTE Band 41 power adjust procedure

LTE Band 41	Original Tune up/State2(Ant0)/State4(Ant0)/State6(Ant0)	State1(Ant0)	State1(Ant1)	State2(Ant1)	State3(Ant0)/State5(Ant0)	State3(Ant1)/State5(Ant1)	State4(Ant1)/State6(Ant1)	unit
1.4/3/5/10/15/20 MHz QPSK	23.0[-0.8~+0.8]	22.0[-0.8~+0.8]	22.5[-0.8~+0.8]	19.5[-0.8~+0.8]	19.5[-0.8~+0.8]	20.0[-0.8~+0.8]	17.0[-0.8~+0.8]	dBm
1.4/3/5/10/15/20 MHz 16QAM	22.0[-0.8~+0.8]	21.0[-0.8~+0.8]	21.5[-0.8~+0.8]	18.5[-0.8~+0.8]	18.5[-0.8~+0.8]	19.0[-0.8~+0.8]	16.0[-0.8~+0.8]	dBm
1.4/3/5/10/15/20 MHz 64QAM	21.0[-0.8~+0.8]	20.0[-0.8~+0.8]	20.5[-0.8~+0.8]	17.5[-0.8~+0.8]	17.5[-0.8~+0.8]	18.0[-0.8~+0.8]	15.0[-0.8~+0.8]	dBm

Original Tune up

Band	Mode	Channel	Target Power (dBm)	Tolerance (± dB)	unit
2.4G	2.4G_802.11b_20MHz	CH1	13.5	2.0	dBm
		CH2	13.5	2.0	dBm
		CH3	13.5	2.0	dBm
		CH4	13.5	2.0	dBm
		CH5	13.5	2.0	dBm
		CH6	13.5	2.0	dBm
		CH7	13.5	2.0	dBm
		CH8	13.5	2.0	dBm
		CH9	13.5	2.0	dBm
		CH10	13.5	2.0	dBm
		CH11	13.5	2.0	dBm
	2.4G_802.11g_20MHz	CH1	14.0	2.0	dBm
		CH2	16.0	2.0	dBm
		CH3	17.0	2.0	dBm
		CH4	17.0	2.0	dBm

		CH5	17.0	2.0	dBm
		CH6	17.0	2.0	dBm
		CH7	17.0	2.0	dBm
		CH8	17.0	2.0	dBm
		CH9	17.0	2.0	dBm
		CH10	14.0	2.0	dBm
		CH11	12.0	2.0	dBm
	2.4G_802.11n_20MHz	CH1	14.0	2.0	dBm
		CH2	16.0	2.0	dBm
		CH3	17.0	2.0	dBm
		CH4	17.0	2.0	dBm
		CH5	17.0	2.0	dBm
		CH6	17.0	2.0	dBm
		CH7	17.0	2.0	dBm
		CH8	17.0	2.0	dBm
		CH9	17.0	2.0	dBm
		CH10	14.0	2.0	dBm
		CH11	12.0	2.0	dBm
	2.4G_802.11n_40MHz	CH3	12.0	2.0	dBm
		CH4	14.0	2.0	dBm
		CH5	17.0	2.0	dBm
		CH6	17.0	2.0	dBm
		CH7	16.0	2.0	dBm
		CH8	13.0	2.0	dBm
		CH9	10.0	2.0	dBm
	2.4G_802.11ac_20MHz	CH1	14.0	2.0	dBm
		CH2	16.0	2.0	dBm
		CH3	17.0	2.0	dBm
		CH4	17.0	2.0	dBm
		CH5	17.0	2.0	dBm
		CH6	17.0	2.0	dBm
		CH7	17.0	2.0	dBm
		CH8	17.0	2.0	dBm
		CH9	17.0	2.0	dBm

		CH10	14.0	2.0	dBm
		CH11	12.0	2.0	dBm
	2.4G_802.11ac_40MHz	CH3	12.0	2.0	dBm
		CH4	14.0	2.0	dBm
		CH5	17.0	2.0	dBm
		CH6	17.0	2.0	dBm
		CH7	16.0	2.0	dBm
		CH8	13.0	2.0	dBm
		CH9	10.0	2.0	dBm

Band	Mode	Channel	Target Power (dBm)	Tolerance (± dB)	unit
5G B1	B1_802.11a_20MHz	CH36	15.0	2.0	dBm
		CH40	16.0	2.0	dBm
		CH44	16.0	2.0	dBm
		CH48	15.5	2.0	dBm
	B1_802.11n_20MHz	CH36	15.0	2.0	dBm
		CH40	16.0	2.0	dBm
		CH44	16.0	2.0	dBm
		CH48	15.5	2.0	dBm
	B1_802.11n_40MHz	CH38	13.5	2.0	dBm
		CH46	16.0	2.0	dBm
	B1_802.11ac_20MHz	CH36	15.0	2.0	dBm
		CH40	16.0	2.0	dBm
		CH44	16.0	2.0	dBm
		CH48	15.5	2.0	dBm
	B1_802.11ac_40MHz	CH38	13.5	2.0	dBm
		CH46	16.0	2.0	dBm

	B1_802.11ac_80MHz	CH42	11.0	2.0	dBm
5G B2A	B2A_802.11a_20MHz	CH52	15.0	2.0	dBm
		CH56	15.0	2.0	dBm
		CH60	14.5	2.0	dBm
		CH64	11.5	2.0	dBm
	B2A_802.11n_20MHz	CH52	15.0	2.0	dBm
		CH56	15.0	2.0	dBm
		CH60	14.5	2.0	dBm
		CH64	11.5	2.0	dBm
	B2A_802.11n_40MHz	CH54	16.0	2.0	dBm
		CH62	12.5	2.0	dBm
	B2A_802.11ac_20MHz	CH52	15.0	2.0	dBm
		CH56	15.0	2.0	dBm
		CH60	14.5	2.0	dBm
		CH64	11.5	2.0	dBm
	B2A_802.11ac_40MHz	CH54	16.0	2.0	dBm
		CH62	12.5	2.0	dBm
	B2A_802.11ac_80MHz	CH58	12.5	2.0	dBm
5G B2C	B2C_802.11a_20MHz	CH100	11.5	2.0	dBm
		CH104	14.5	2.0	dBm
		CH108	16.0	2.0	dBm
		CH112	16.0	2.0	dBm
		CH116	16.0	2.0	dBm
		CH120	16.0	2.0	dBm
		CH124	16.0	2.0	dBm
		CH128	16.0	2.0	dBm
		CH132	16.0	2.0	dBm
		CH136	14.0	2.0	dBm
		CH140	12.0	2.0	dBm
	B2C_802.11n_20MHz	CH100	11.5	2.0	dBm
		CH104	14.5	2.0	dBm
		CH108	16.0	2.0	dBm
		CH112	16.0	2.0	dBm
		CH116	16.0	2.0	dBm

		CH120	16.0	2.0	dBm
		CH124	16.0	2.0	dBm
		CH128	16.0	2.0	dBm
		CH132	16.0	2.0	dBm
		CH136	14.0	2.0	dBm
		CH140	12.0	2.0	dBm
	B2C_802.11n_40MHz	CH102	10.0	2.0	dBm
		CH110	13.0	2.0	dBm
		CH118	16.0	2.0	dBm
		CH126	14.5	2.0	dBm
		CH134	12.5	2.0	dBm
	B2C_802.11ac_20MHz	CH100	11.5	2.0	dBm
		CH104	14.5	2.0	dBm
		CH108	16.0	2.0	dBm
		CH112	16.0	2.0	dBm
		CH116	16.0	2.0	dBm
		CH120	16.0	2.0	dBm
		CH124	16.0	2.0	dBm
		CH128	16.0	2.0	dBm
		CH132	16.0	2.0	dBm
		CH136	14.0	2.0	dBm
		CH140	12.0	2.0	dBm
	B2C_802.11ac_40MHz	CH102	10.0	2.0	dBm
		CH110	13.0	2.0	dBm
		CH118	16.0	2.0	dBm
		CH126	14.5	2.0	dBm
		CH134	12.5	2.0	dBm
	B2C_802.11ac_80MHz	CH106	9.5	2.0	dBm
		CH122	12.5	2.0	dBm
5G B3	B3_802.11a_20MHz	CH149	16.0	2.0	dBm
		CH153	16.0	2.0	dBm
		CH157	16.0	2.0	dBm
		CH161	16.0	2.0	dBm
		CH165	16.0	2.0	dBm

	B3_802.11n_20MHz	CH149	16.0	2.0	dBm
		CH153	16.0	2.0	dBm
		CH157	16.0	2.0	dBm
		CH161	16.0	2.0	dBm
		CH165	16.0	2.0	dBm
	B3_802.11n_40MHz	CH151	16.0	2.0	dBm
		CH159	16.0	2.0	dBm
	B3_802.11ac_20MHz	CH149	16.0	2.0	dBm
		CH153	16.0	2.0	dBm
		CH157	16.0	2.0	dBm
		CH161	16.0	2.0	dBm
		CH165	16.0	2.0	dBm
	B3_802.11ac_40MHz	CH151	16.0	2.0	dBm
		CH159	16.0	2.0	dBm
	B3_802.11ac_80MHz	CH155	16.0	2.0	

2.4G WIFI Reduce Power tune up (Head)

Band	Mode	Channel	Target Power (dBm)	Tolerance (± dB)	unit
2.4G	2.4G_802.11b_20MHz	CH1	13.5	2.0	dBm
		CH2	13.5	2.0	dBm
		CH3	13.5	2.0	dBm
		CH4	13.5	2.0	dBm
		CH5	13.5	2.0	dBm
		CH6	13.5	2.0	dBm
		CH7	13.5	2.0	dBm
		CH8	13.5	2.0	dBm
		CH9	13.5	2.0	dBm
		CH10	13.5	2.0	dBm
		CH11	13.5	2.0	dBm
	2.4G_802.11g_20MHz	CH1	14.0	2.0	dBm
		CH2	14.5	2.0	dBm
		CH3	14.5	2.0	dBm

		CH4	14.5	2.0	dBm
		CH5	14.5	2.0	dBm
		CH6	14.5	2.0	dBm
		CH7	14.5	2.0	dBm
		CH8	14.5	2.0	dBm
		CH9	14.5	2.0	dBm
		CH10	14.0	2.0	dBm
		CH11	12.0	2.0	dBm
	2.4G_802.11n_20MHz	CH1	14.0	2.0	dBm
		CH2	14.5	2.0	dBm
		CH3	14.5	2.0	dBm
		CH4	14.5	2.0	dBm
		CH5	14.5	2.0	dBm
		CH6	14.5	2.0	dBm
		CH7	14.5	2.0	dBm
		CH8	14.5	2.0	dBm
		CH9	14.5	2.0	dBm
		CH10	14.0	2.0	dBm
		CH11	12.0	2.0	dBm
	2.4G_802.11n_40MHz	CH3	12.0	2.0	dBm
		CH4	14.0	2.0	dBm
		CH5	14.5	2.0	dBm
		CH6	14.5	2.0	dBm
		CH7	14.5	2.0	dBm
		CH8	13.0	2.0	dBm
		CH9	10.0	2.0	dBm
	2.4G_802.11ac_20MHz	CH1	14.0	2.0	dBm
		CH2	14.5	2.0	dBm
		CH3	14.5	2.0	dBm
		CH4	14.5	2.0	dBm
		CH5	14.5	2.0	dBm
		CH6	14.5	2.0	dBm
		CH7	14.5	2.0	dBm
		CH8	14.5	2.0	dBm

		CH9	14.5	2.0	dBm
		CH10	14.0	2.0	dBm
		CH11	12.0	2.0	dBm
	2.4G_802.11ac_40MHz	CH3	12.0	2.0	dBm
		CH4	14.0	2.0	dBm
		CH5	14.5	2.0	dBm
		CH6	14.5	2.0	dBm
		CH7	14.5	2.0	dBm
		CH8	13.0	2.0	dBm
		CH9	10.0	2.0	dBm

2.4G WIFI Reduce Power tune up (Head Simultaneous)

Band	Mode	Channel	Target Power (dBm)	Tolerance (± dB)	unit
2.4G	2.4G_802.11b_20MHz	CH1	12.0	2.0	dBm
		CH2	12.0	2.0	dBm
		CH3	12.0	2.0	dBm
		CH4	12.0	2.0	dBm
		CH5	12.0	2.0	dBm
		CH6	12.0	2.0	dBm
		CH7	12.0	2.0	dBm
		CH8	12.0	2.0	dBm
		CH9	12.0	2.0	dBm
		CH10	12.0	2.0	dBm
		CH11	12.0	2.0	dBm
	2.4G_802.11g_20MHz	CH1	12.0	2.0	dBm
		CH2	12.0	2.0	dBm
		CH3	12.0	2.0	dBm

		CH4	12.0	2.0	dBm
		CH5	12.0	2.0	dBm
		CH6	12.0	2.0	dBm
		CH7	12.0	2.0	dBm
		CH8	12.0	2.0	dBm
		CH9	12.0	2.0	dBm
		CH10	12.0	2.0	dBm
		CH11	12.0	2.0	dBm
	2.4G_802.11n_20MHz	CH1	12.0	2.0	dBm
		CH2	12.0	2.0	dBm
		CH3	12.0	2.0	dBm
		CH4	12.0	2.0	dBm
		CH5	12.0	2.0	dBm
		CH6	12.0	2.0	dBm
		CH7	12.0	2.0	dBm
		CH8	12.0	2.0	dBm
		CH9	12.0	2.0	dBm
		CH10	12.0	2.0	dBm
		CH11	12.0	2.0	dBm
	2.4G_802.11n_40MHz	CH3	12.0	2.0	dBm
		CH4	12.0	2.0	dBm
		CH5	12.0	2.0	dBm
		CH6	12.0	2.0	dBm
		CH7	12.0	2.0	dBm
		CH8	12.0	2.0	dBm
		CH9	10.0	2.0	dBm
	2.4G_802.11ac_20MHz	CH1	12.0	2.0	dBm
		CH2	12.0	2.0	dBm
		CH3	12.0	2.0	dBm
		CH4	12.0	2.0	dBm
		CH5	12.0	2.0	dBm
		CH6	12.0	2.0	dBm
		CH7	12.0	2.0	dBm
		CH8	12.0	2.0	dBm

		CH9	12.0	2.0	dBm
		CH10	12.0	2.0	dBm
		CH11	12.0	2.0	dBm
	2.4G_802.11ac_40MHz	CH3	12.0	2.0	dBm
		CH4	12.0	2.0	dBm
		CH5	12.0	2.0	dBm
		CH6	12.0	2.0	dBm
		CH7	12.0	2.0	dBm
		CH8	12.0	2.0	dBm
		CH9	10.0	2.0	dBm

2.4G WIFI Reduce Power tune up (Body Simultaneous)

Band	Mode	Channel	Target Power (dBm)	Tolerance (± dB)	unit
2.4G	2.4G_802.11b_20MHz	CH1	13.5	2.0	dBm
		CH2	13.5	2.0	dBm
		CH3	13.5	2.0	dBm
		CH4	13.5	2.0	dBm
		CH5	13.5	2.0	dBm
		CH6	13.5	2.0	dBm
		CH7	13.5	2.0	dBm
		CH8	13.5	2.0	dBm
		CH9	13.5	2.0	dBm
		CH10	13.5	2.0	dBm
		CH11	13.5	2.0	dBm
	2.4G_802.11g_20MHz	CH1	14.0	2.0	dBm
		CH2	15.5	2.0	dBm
		CH3	15.5	2.0	dBm

		CH4	15.5	2.0	dBm
		CH5	15.5	2.0	dBm
		CH6	15.5	2.0	dBm
		CH7	15.5	2.0	dBm
		CH8	15.5	2.0	dBm
		CH9	15.5	2.0	dBm
		CH10	14.0	2.0	dBm
		CH11	12.0	2.0	dBm
	2.4G_802.11n_20MHz	CH1	14.0	2.0	dBm
		CH2	15.5	2.0	dBm
		CH3	15.5	2.0	dBm
		CH4	15.5	2.0	dBm
		CH5	15.5	2.0	dBm
		CH6	15.5	2.0	dBm
		CH7	15.5	2.0	dBm
		CH8	15.5	2.0	dBm
		CH9	15.5	2.0	dBm
		CH10	14.0	2.0	dBm
		CH11	12.0	2.0	dBm
	2.4G_802.11n_40MHz	CH3	12.0	2.0	dBm
		CH4	14.0	2.0	dBm
		CH5	15.5	2.0	dBm
		CH6	15.5	2.0	dBm
		CH7	15.5	2.0	dBm
		CH8	13.0	2.0	dBm
		CH9	10.0	2.0	dBm
	2.4G_802.11ac_20MHz	CH1	14.0	2.0	dBm
		CH2	16.0	2.0	dBm
		CH3	15.5	2.0	dBm
		CH4	15.5	2.0	dBm
		CH5	15.5	2.0	dBm
		CH6	15.5	2.0	dBm
		CH7	15.5	2.0	dBm
		CH8	15.5	2.0	dBm

		CH9	15.5	2.0	dBm
		CH10	14.0	2.0	dBm
		CH11	12.0	2.0	dBm
	2.4G_802.11ac_40MHz	CH3	12.0	2.0	dBm
		CH4	14.0	2.0	dBm
		CH5	15.5	2.0	dBm
		CH6	15.5	2.0	dBm
		CH7	15.5	2.0	dBm
		CH8	13.0	2.0	dBm
		CH9	10.0	2.0	dBm

5G WIFI Reduce power tune up (Body)

Band	Mode	Channel	Target Power (dBm)	Tolerance (± dB)	unit
5G B1	B1_802.11a_20MHz	CH36	14.5	2.0	dBm
		CH40	14.5	2.0	dBm
		CH44	14.5	2.0	dBm
		CH48	14.5	2.0	dBm
	B1_802.11n_20MHz	CH36	14.5	2.0	dBm
		CH40	14.5	2.0	dBm
		CH44	14.5	2.0	dBm
		CH48	14.5	2.0	dBm
	B1_802.11n_40MHz	CH38	13.5	2.0	dBm
		CH46	14.5	2.0	dBm
	B1_802.11ac_20MHz	CH36	14.5	2.0	dBm
		CH40	14.5	2.0	dBm
		CH44	14.5	2.0	dBm
		CH48	14.5	2.0	dBm

	B1_802.11ac_40MHz	CH38	13.5	2.0	dBm
		CH46	14.5	2.0	dBm
	B1_802.11ac_80MHz	CH42	11.0	2.0	dBm
5G B2A	B2A_802.11a_20MHz	CH52	14.5	2.0	dBm
		CH56	14.5	2.0	dBm
		CH60	14.5	2.0	dBm
		CH64	11.5	2.0	dBm
	B2A_802.11n_20MHz	CH52	14.5	2.0	dBm
		CH56	14.5	2.0	dBm
		CH60	14.5	2.0	dBm
		CH64	11.5	2.0	dBm
	B2A_802.11n_40MHz	CH54	14.5	2.0	dBm
		CH62	12.5	2.0	dBm
	B2A_802.11ac_20MHz	CH52	14.5	2.0	dBm
		CH56	14.5	2.0	dBm
		CH60	14.5	2.0	dBm
		CH64	11.5	2.0	dBm
	B2A_802.11ac_40MHz	CH54	14.5	2.0	dBm
		CH62	12.5	2.0	dBm
	B2A_802.11ac_80MHz	CH58	12.5	2.0	dBm
5G B2C	B2C_802.11a_20MHz	CH100	11.5	2.0	dBm
		CH104	14.5	2.0	dBm
		CH108	14.5	2.0	dBm
		CH112	14.5	2.0	dBm
		CH116	14.5	2.0	dBm
		CH120	14.5	2.0	dBm
		CH124	14.5	2.0	dBm
		CH128	14.5	2.0	dBm
		CH132	14.5	2.0	dBm
		CH136	14.0	2.0	dBm
		CH140	12.0	2.0	dBm
	B2C_802.11n_20MHz	CH100	11.5	2.0	dBm
		CH104	14.5	2.0	dBm
		CH108	14.5	2.0	dBm

		CH112	14.5	2.0	dBm
		CH116	14.5	2.0	dBm
		CH120	14.5	2.0	dBm
		CH124	14.5	2.0	dBm
		CH128	14.5	2.0	dBm
		CH132	14.5	2.0	dBm
		CH136	14.0	2.0	dBm
		CH140	12.0	2.0	dBm
	B2C_802.11n_40MHz	CH102	10.0	2.0	dBm
		CH110	13.0	2.0	dBm
		CH118	14.5	2.0	dBm
		CH126	14.5	2.0	dBm
		CH134	12.5	2.0	dBm
	B2C_802.11ac_20MHz	CH100	11.5	2.0	dBm
		CH104	14.5	2.0	dBm
		CH108	14.5	2.0	dBm
		CH112	14.5	2.0	dBm
		CH116	14.5	2.0	dBm
		CH120	14.5	2.0	dBm
		CH124	14.5	2.0	dBm
		CH128	14.5	2.0	dBm
		CH132	14.5	2.0	dBm
		CH136	14.0	2.0	dBm
		CH140	12.0	2.0	dBm
	B2C_802.11ac_40MHz	CH102	10.0	2.0	dBm
		CH110	13.0	2.0	dBm
		CH118	14.5	2.0	dBm
		CH126	14.5	2.0	dBm
		CH134	12.5	2.0	dBm
	B2C_802.11ac_80MHz	CH106	9.5	2.0	dBm
		CH122	12.5	2.0	dBm
5G B3	B3_802.11a_20MHz	CH149	14.5	2.0	dBm
		CH153	14.5	2.0	dBm
		CH157	14.5	2.0	dBm

		CH161	14.5	2.0	dBm
		CH165	14.5	2.0	dBm
	B3_802.11n_20MHz	CH149	14.5	2.0	dBm
		CH153	14.5	2.0	dBm
		CH157	14.5	2.0	dBm
		CH161	14.5	2.0	dBm
		CH165	14.5	2.0	dBm
	B3_802.11n_40MHz	CH151	14.5	2.0	dBm
		CH159	14.5	2.0	dBm
	B3_802.11ac_20MHz	CH149	14.5	2.0	dBm
		CH153	14.5	2.0	dBm
		CH157	14.5	2.0	dBm
		CH161	14.5	2.0	dBm
		CH165	14.5	2.0	dBm
	B3_802.11ac_40MHz	CH151	14.5	2.0	dBm
		CH159	14.5	2.0	dBm
	B3_802.11ac_80MHz	CH155	14.5	2.0	dBm

5G WIFI Reduce power tune up (Head Simultaneous)

Band	Mode	Channel	Target Power (dBm)	Tolerance (± dB)	unit
5G B1	B1_802.11a_20MHz	CH36	13.5	2.0	dBm
		CH40	13.5	2.0	dBm
		CH44	13.5	2.0	dBm
		CH48	13.5	2.0	dBm
	B1_802.11n_20MHz	CH36	13.5	2.0	dBm
		CH40	13.5	2.0	dBm
		CH44	13.5	2.0	dBm
		CH48	13.5	2.0	dBm
	B1_802.11n_40MHz	CH38	13.5	2.0	dBm
		CH46	13.5	2.0	dBm

	B1_802.11ac_20MHz	CH36	13.5	2.0	dBm
		CH40	13.5	2.0	dBm
		CH44	13.5	2.0	dBm
		CH48	13.5	2.0	dBm
	B1_802.11ac_40MHz	CH38	13.5	2.0	dBm
		CH46	13.5	2.0	dBm
	B1_802.11ac_80MHz	CH42	11.0	2.0	dBm
5G B2A	B2A_802.11a_20MHz	CH52	13.5	2.0	dBm
		CH56	13.5	2.0	dBm
		CH60	13.5	2.0	dBm
		CH64	11.5	2.0	dBm
	B2A_802.11n_20MHz	CH52	13.5	2.0	dBm
		CH56	13.5	2.0	dBm
		CH60	13.5	2.0	dBm
		CH64	11.5	2.0	dBm
	B2A_802.11n_40MHz	CH54	13.5	2.0	dBm
		CH62	12.5	2.0	dBm
	B2A_802.11ac_20MHz	CH52	13.5	2.0	dBm
		CH56	13.5	2.0	dBm
		CH60	13.5	2.0	dBm
		CH64	11.5	2.0	dBm
	B2A_802.11ac_40MHz	CH54	13.5	2.0	dBm
		CH62	12.5	2.0	dBm
	B2A_802.11ac_80MHz	CH58	12.5	2.0	dBm
5G B2C	B2C_802.11a_20MHz	CH100	11.5	2.0	dBm
		CH104	13.5	2.0	dBm
		CH108	13.5	2.0	dBm
		CH112	13.5	2.0	dBm
		CH116	13.5	2.0	dBm
		CH120	13.5	2.0	dBm
		CH124	13.5	2.0	dBm
		CH128	13.5	2.0	dBm
		CH132	13.5	2.0	dBm
		CH136	13.5	2.0	dBm

		CH140	12.0	2.0	dBm
	B2C_802.11n_20MHz	CH100	11.5	2.0	dBm
		CH104	13.5	2.0	dBm
		CH108	13.5	2.0	dBm
		CH112	13.5	2.0	dBm
		CH116	13.5	2.0	dBm
		CH120	13.5	2.0	dBm
		CH124	13.5	2.0	dBm
		CH128	13.5	2.0	dBm
		CH132	13.5	2.0	dBm
		CH136	13.5	2.0	dBm
		CH140	12.0	2.0	dBm
	B2C_802.11n_40MHz	CH102	10.0	2.0	dBm
		CH110	13.5	2.0	dBm
		CH118	13.5	2.0	dBm
		CH126	13.5	2.0	dBm
		CH134	12.5	2.0	dBm
	B2C_802.11ac_20MHz	CH100	11.5	2.0	dBm
		CH104	13.5	2.0	dBm
		CH108	13.5	2.0	dBm
		CH112	13.5	2.0	dBm
		CH116	13.5	2.0	dBm
		CH120	13.5	2.0	dBm
		CH124	13.5	2.0	dBm
		CH128	13.5	2.0	dBm
		CH132	13.5	2.0	dBm
		CH136	13.5	2.0	dBm
		CH140	12.0	2.0	dBm
	B2C_802.11ac_40MHz	CH102	10.0	2.0	dBm
		CH110	13.5	2.0	dBm
		CH118	13.5	2.0	dBm
		CH126	13.5	2.0	dBm
		CH134	12.5	2.0	dBm
	B2C_802.11ac_80MHz	CH106	9.5	2.0	dBm

		CH122	12.5	2.0	dBm
5G B3	B3_802.11a_20MHz	CH149	13.5	2.0	dBm
		CH153	13.5	2.0	dBm
		CH157	13.5	2.0	dBm
		CH161	13.5	2.0	dBm
		CH165	13.5	2.0	dBm
	B3_802.11n_20MHz	CH149	13.5	2.0	dBm
		CH153	13.5	2.0	dBm
		CH157	13.5	2.0	dBm
		CH161	13.5	2.0	dBm
		CH165	13.5	2.0	dBm
	B3_802.11n_40MHz	CH151	13.5	2.0	dBm
		CH159	13.5	2.0	dBm
	B3_802.11ac_20MHz	CH149	13.5	2.0	dBm
		CH153	13.5	2.0	dBm
		CH157	13.5	2.0	dBm
		CH161	13.5	2.0	dBm
		CH165	13.5	2.0	dBm
	B3_802.11ac_40MHz	CH151	13.5	2.0	dBm
		CH159	13.5	2.0	dBm
	B3_802.11ac_80MHz	CH155	13.5	2.0	dBm

5G WIFI Reduce power tune up (Head Simultaneous +BT)

Band	Mode	Channel	Target Power (dBm)	Tolerance (± dB)	unit
5G B1	B1_802.11a_20MHz	CH36	13.0	2.0	dBm
		CH40	13.0	2.0	dBm
		CH44	13.0	2.0	dBm
		CH48	13.0	2.0	dBm
	B1_802.11n_20MHz	CH36	13.0	2.0	dBm
		CH40	13.0	2.0	dBm
		CH44	13.0	2.0	dBm
		CH48	13.0	2.0	dBm

	B1_802.11n_40MHz	CH38	13.0	2.0	dBm
		CH46	13.0	2.0	dBm
	B1_802.11ac_20MHz	CH36	13.0	2.0	dBm
		CH40	13.0	2.0	dBm
		CH44	13.0	2.0	dBm
		CH48	13.0	2.0	dBm
	B1_802.11ac_40MHz	CH38	13.0	2.0	dBm
		CH46	13.0	2.0	dBm
	B1_802.11ac_80MHz	CH42	11.0	2.0	dBm
5G B2A	B2A_802.11a_20MHz	CH52	13.0	2.0	dBm
		CH56	13.0	2.0	dBm
		CH60	13.0	2.0	dBm
		CH64	11.5	2.0	dBm
	B2A_802.11n_20MHz	CH52	13.0	2.0	dBm
		CH56	13.0	2.0	dBm
		CH60	13.0	2.0	dBm
		CH64	11.5	2.0	dBm
	B2A_802.11n_40MHz	CH54	13.0	2.0	dBm
		CH62	12.5	2.0	dBm
	B2A_802.11ac_20MHz	CH52	13.0	2.0	dBm
		CH56	13.0	2.0	dBm
		CH60	13.0	2.0	dBm
		CH64	11.5	2.0	dBm
	B2A_802.11ac_40MHz	CH54	13.0	2.0	dBm
		CH62	12.5	2.0	dBm
	B2A_802.11ac_80MHz	CH58	12.5	2.0	dBm
5G B2C	B2C_802.11a_20MHz	CH100	11.5	2.0	dBm
		CH104	13.0	2.0	dBm
		CH108	13.0	2.0	dBm
		CH112	13.0	2.0	dBm
		CH116	13.0	2.0	dBm
		CH120	13.0	2.0	dBm
		CH124	13.0	2.0	dBm
		CH128	13.0	2.0	dBm

		CH132	13.0	2.0	dBm
		CH136	13.0	2.0	dBm
		CH140	12.0	2.0	dBm
	B2C_802.11n_20MHz	CH100	11.5	2.0	dBm
		CH104	13.0	2.0	dBm
		CH108	13.0	2.0	dBm
		CH112	13.0	2.0	dBm
		CH116	13.0	2.0	dBm
		CH120	13.0	2.0	dBm
		CH124	13.0	2.0	dBm
		CH128	13.0	2.0	dBm
		CH132	13.0	2.0	dBm
		CH136	13.0	2.0	dBm
		CH140	12.0	2.0	dBm
	B2C_802.11n_40MHz	CH102	10.0	2.0	dBm
		CH110	13.0	2.0	dBm
		CH118	13.0	2.0	dBm
		CH126	13.0	2.0	dBm
		CH134	12.5	2.0	dBm
	B2C_802.11ac_20MHz	CH100	11.5	2.0	dBm
		CH104	13.0	2.0	dBm
		CH108	13.0	2.0	dBm
		CH112	13.0	2.0	dBm
		CH116	13.0	2.0	dBm
		CH120	13.0	2.0	dBm
		CH124	13.0	2.0	dBm
		CH128	13.0	2.0	dBm
		CH132	13.0	2.0	dBm
		CH136	13.0	2.0	dBm
		CH140	12.0	2.0	dBm
	B2C_802.11ac_40MHz	CH102	10.0	2.0	dBm
		CH110	13.0	2.0	dBm
		CH118	13.0	2.0	dBm
		CH126	13.0	2.0	dBm

		CH134	12.5	2.0	dBm
	B2C_802.11ac_80MHz	CH106	9.5	2.0	dBm
		CH122	12.5	2.0	dBm
5G B3	B3_802.11a_20MHz	CH149	13.0	2.0	dBm
		CH153	13.0	2.0	dBm
		CH157	13.0	2.0	dBm
		CH161	13.0	2.0	dBm
		CH165	13.0	2.0	dBm
	B3_802.11n_20MHz	CH149	13.0	2.0	dBm
		CH153	13.0	2.0	dBm
		CH157	13.0	2.0	dBm
		CH161	13.0	2.0	dBm
		CH165	13.0	2.0	dBm
	B3_802.11n_40MHz	CH151	13.0	2.0	dBm
		CH159	13.0	2.0	dBm
	B3_802.11ac_20MHz	CH149	13.0	2.0	dBm
		CH153	13.0	2.0	dBm
		CH157	13.0	2.0	dBm
		CH161	13.0	2.0	dBm
		CH165	13.0	2.0	dBm
	B3_802.11ac_40MHz	CH151	13.0	2.0	dBm
		CH159	13.0	2.0	dBm
	B3_802.11ac_80MHz	CH155	13.0	2.0	dBm

5G WIFI Reduce power tune up (Body Simultaneous)

Band	Mode	Channel	Target Power (dBm)	Tolerance (± dB)	unit
5G B1	B1_802.11a_20MHz	CH36	10.5	2.0	dBm
		CH40	10.5	2.0	dBm
		CH44	10.5	2.0	dBm
		CH48	10.5	2.0	dBm
	B1_802.11n_20MHz	CH36	10.5	2.0	dBm

		CH40	10.5	2.0	dBm
		CH44	10.5	2.0	dBm
		CH48	10.5	2.0	dBm
	B1_802.11n_40MHz	CH38	10.5	2.0	dBm
		CH46	10.5	2.0	dBm
	B1_802.11ac_20MHz	CH36	10.5	2.0	dBm
		CH40	10.5	2.0	dBm
		CH44	10.5	2.0	dBm
		CH48	10.5	2.0	dBm
	B1_802.11ac_40MHz	CH38	10.5	2.0	dBm
		CH46	10.5	2.0	dBm
	B1_802.11ac_80MHz	CH42	10.5	2.0	dBm
5G B2A	B2A_802.11a_20MHz	CH52	10.5	2.0	dBm
		CH56	10.5	2.0	dBm
		CH60	10.5	2.0	dBm
		CH64	10.5	2.0	dBm
	B2A_802.11n_20MHz	CH52	10.5	2.0	dBm
		CH56	10.5	2.0	dBm
		CH60	10.5	2.0	dBm
		CH64	10.5	2.0	dBm
	B2A_802.11n_40MHz	CH54	10.5	2.0	dBm
		CH62	10.5	2.0	dBm
	B2A_802.11ac_20MHz	CH52	10.5	2.0	dBm
		CH56	10.5	2.0	dBm
		CH60	10.5	2.0	dBm
		CH64	10.5	2.0	dBm
	B2A_802.11ac_40MHz	CH54	10.5	2.0	dBm
		CH62	10.5	2.0	dBm
	B2A_802.11ac_80MHz	CH58	10.5	2.0	dBm
5G B2C	B2C_802.11a_20MHz	CH100	10.5	2.0	dBm
		CH104	10.5	2.0	dBm
		CH108	10.5	2.0	dBm
		CH112	10.5	2.0	dBm
		CH116	10.5	2.0	dBm

		CH120	10.5	2.0	dBm
		CH124	10.5	2.0	dBm
		CH128	10.5	2.0	dBm
		CH132	10.5	2.0	dBm
		CH136	10.5	2.0	dBm
		CH140	10.5	2.0	dBm
	B2C_802.11n_20MHz	CH100	10.5	2.0	dBm
		CH104	10.5	2.0	dBm
		CH108	10.5	2.0	dBm
		CH112	10.5	2.0	dBm
		CH116	10.5	2.0	dBm
		CH120	10.5	2.0	dBm
		CH124	10.5	2.0	dBm
		CH128	10.5	2.0	dBm
		CH132	10.5	2.0	dBm
		CH136	10.5	2.0	dBm
		CH140	10.5	2.0	dBm
	B2C_802.11n_40MHz	CH102	10.5	2.0	dBm
		CH110	10.5	2.0	dBm
		CH118	10.5	2.0	dBm
		CH126	10.5	2.0	dBm
		CH134	10.5	2.0	dBm
	B2C_802.11ac_20MHz	CH100	10.5	2.0	dBm
		CH104	10.5	2.0	dBm
		CH108	10.5	2.0	dBm
		CH112	10.5	2.0	dBm
		CH116	10.5	2.0	dBm
		CH120	10.5	2.0	dBm
		CH124	10.5	2.0	dBm
		CH128	10.5	2.0	dBm
		CH132	10.5	2.0	dBm
		CH136	10.5	2.0	dBm
		CH140	10.5	2.0	dBm
	B2C_802.11ac_40MHz	CH102	10.5	2.0	dBm

		CH110	10.5	2.0	dBm
		CH118	10.5	2.0	dBm
		CH126	10.5	2.0	dBm
		CH134	10.5	2.0	dBm
	B2C_802.11ac_80MHz	CH106	9.5	2.0	dBm
		CH122	10.5	2.0	dBm
5G B3	B3_802.11a_20MHz	CH149	10.5	2.0	dBm
		CH153	10.5	2.0	dBm
		CH157	10.5	2.0	dBm
		CH161	10.5	2.0	dBm
		CH165	10.5	2.0	dBm
	B3_802.11n_20MHz	CH149	10.5	2.0	dBm
		CH153	10.5	2.0	dBm
		CH157	10.5	2.0	dBm
		CH161	10.5	2.0	dBm
		CH165	10.5	2.0	dBm
	B3_802.11n_40MHz	CH151	10.5	2.0	dBm
		CH159	10.5	2.0	dBm
	B3_802.11ac_20MHz	CH149	10.5	2.0	dBm
		CH153	10.5	2.0	dBm
		CH157	10.5	2.0	dBm
		CH161	10.5	2.0	dBm
		CH165	10.5	2.0	dBm
	B3_802.11ac_40MHz	CH151	10.5	2.0	dBm
		CH159	10.5	2.0	dBm
	B3_802.11ac_80MHz	CH155	10.5	2.0	dBm

5G WIFI Reduce power tune up (Body Simultaneous +BT)

Band	Mode	Channel	Target Power (dBm)	Tolerance (± dB)	unit
5G B1	B1_802.11a_20MHz	CH36	10.0	2.0	dBm
		CH40	10.0	2.0	dBm

		CH44	10.0	2.0	dBm
		CH48	10.0	2.0	dBm
	B1_802.11n_20MHz	CH36	10.0	2.0	dBm
		CH40	10.0	2.0	dBm
		CH44	10.0	2.0	dBm
		CH48	10.0	2.0	dBm
	B1_802.11n_40MHz	CH38	10.0	2.0	dBm
		CH46	10.0	2.0	dBm
	B1_802.11ac_20MHz	CH36	10.0	2.0	dBm
		CH40	10.0	2.0	dBm
		CH44	10.0	2.0	dBm
		CH48	10.0	2.0	dBm
	B1_802.11ac_40MHz	CH38	10.0	2.0	dBm
		CH46	10.0	2.0	dBm
	B1_802.11ac_80MHz	CH42	10.0	2.0	dBm
5G B2A	B2A_802.11a_20MHz	CH52	10.0	2.0	dBm
		CH56	10.0	2.0	dBm
		CH60	10.0	2.0	dBm
		CH64	10.0	2.0	dBm
	B2A_802.11n_20MHz	CH52	10.0	2.0	dBm
		CH56	10.0	2.0	dBm
		CH60	10.0	2.0	dBm
		CH64	10.0	2.0	dBm
	B2A_802.11n_40MHz	CH54	10.0	2.0	dBm
		CH62	10.0	2.0	dBm
	B2A_802.11ac_20MHz	CH52	10.0	2.0	dBm
		CH56	10.0	2.0	dBm
		CH60	10.0	2.0	dBm
		CH64	10.0	2.0	dBm
	B2A_802.11ac_40MHz	CH54	10.0	2.0	dBm
		CH62	10.0	2.0	dBm
	B2A_802.11ac_80MHz	CH58	10.0	2.0	dBm
5G B2C	B2C_802.11a_20MHz	CH100	10.0	2.0	dBm
		CH104	10.0	2.0	dBm

		CH108	10.0	2.0	dBm
		CH112	10.0	2.0	dBm
		CH116	10.0	2.0	dBm
		CH120	10.0	2.0	dBm
		CH124	10.0	2.0	dBm
		CH128	10.0	2.0	dBm
		CH132	10.0	2.0	dBm
		CH136	10.0	2.0	dBm
		CH140	10.0	2.0	dBm
	B2C_802.11n_20MHz	CH100	10.0	2.0	dBm
		CH104	10.0	2.0	dBm
		CH108	10.0	2.0	dBm
		CH112	10.0	2.0	dBm
		CH116	10.0	2.0	dBm
		CH120	10.0	2.0	dBm
		CH124	10.0	2.0	dBm
		CH128	10.0	2.0	dBm
		CH132	10.0	2.0	dBm
		CH136	10.0	2.0	dBm
		CH140	10.0	2.0	dBm
	B2C_802.11n_40MHz	CH102	10.0	2.0	dBm
		CH110	10.0	2.0	dBm
		CH118	10.0	2.0	dBm
		CH126	10.0	2.0	dBm
		CH134	10.0	2.0	dBm
	B2C_802.11ac_20MHz	CH100	10.0	2.0	dBm
		CH104	10.0	2.0	dBm
		CH108	10.0	2.0	dBm
		CH112	10.0	2.0	dBm
		CH116	10.0	2.0	dBm
		CH120	10.0	2.0	dBm
		CH124	10.0	2.0	dBm
		CH128	10.0	2.0	dBm
		CH132	10.0	2.0	dBm

		CH136	10.0	2.0	dBm
		CH140	10.0	2.0	dBm
	B2C_802.11ac_40MHz	CH102	10.0	2.0	dBm
		CH110	10.0	2.0	dBm
		CH118	10.0	2.0	dBm
		CH126	10.0	2.0	dBm
		CH134	10.0	2.0	dBm
	B2C_802.11ac_80MHz	CH106	9.5	2.0	dBm
		CH122	10.0	2.0	dBm
5G B3	B3_802.11a_20MHz	CH149	10.0	2.0	dBm
		CH153	10.0	2.0	dBm
		CH157	10.0	2.0	dBm
		CH161	10.0	2.0	dBm
		CH165	10.0	2.0	dBm
	B3_802.11n_20MHz	CH149	10.0	2.0	dBm
		CH153	10.0	2.0	dBm
		CH157	10.0	2.0	dBm
		CH161	10.0	2.0	dBm
		CH165	10.0	2.0	dBm
	B3_802.11n_40MHz	CH151	10.0	2.0	dBm
		CH159	10.0	2.0	dBm
	B3_802.11ac_20MHz	CH149	10.0	2.0	dBm
		CH153	10.0	2.0	dBm
		CH157	10.0	2.0	dBm
		CH161	10.0	2.0	dBm
		CH165	10.0	2.0	dBm
	B3_802.11ac_40MHz	CH151	10.0	2.0	dBm
		CH159	10.0	2.0	dBm
	B3_802.11ac_80MHz	CH155	10.0	2.0	dBm

Band	Mode	Channel	Target Power (dBm)	Tolerance (± dB)	unit

BT	BT_DH5	CH0-78	11.0	3.0	dBm
	BT_2DH5	CH0-78	9.0	3.0	dBm
	BT_3DH5	CH0-78	9.0	3.0	dBm
	BT_LE	CH0-39	5.0	3.0	dBm

12. MEASUREMENT RESULTS

Result: Passed

Date of testing	:	2022.08.02~2022.08.17;
Ambient temperature	:	20℃~22℃
Relative humidity	:	50~68%

12.1. Conducted Power

For the measurements a Rohde & Schwarz Radio Communication Tester CMU 200 was used.
SAR drift measured at the same position in liquid before and after each SAR test.
Note: CMU200 measures GSM peak and average output power for active timeslots. For SAR the time based average power is relevant. The difference in between depends on the duty cycle of the TDMA signal:

No. of Timeslots	1	2	3	4
Duty Cycle	1:8.3	1:4.1	1:2.77	1:2.08
Time based avg. power compared to slotted avg. power	-9.00dB	-6.00 dB	-4.26dB	-3.00dB

The signalling modes differ as follows:

Mode	Coding scheme	Modulation
GPRS	CS1 to CS4	GMSK
EDGE	MCS1 to MCS4	GMSK
EDGE	MCS5 to MCS9	8PSK

Apart from modulation change (GMSK/8PSK) coding schemes differ in code rate without influence on the RF signal. Therefore one coding scheme per mode was selected for conducted power measurements.

12.2. Power

Receiver detection mechanism specification:

This device support the receiver detection mechanism, the main purpose is to minimize triggering associated with power reduction scenarios by receiver detection mechanisms and provide enhanced user experience. It uses the receiver to indicate whether the user is making a call in head scenario or not. The selection between head and body power levels is based on the receiver detection mechanism. It can determine proximity to head or body and set the relevant power level for 2G&3G&4G and Wi-Fi antennas accordingly.

SAR test Plan:

For Head SAR test, SAR is evaluated with receiver on mode.

For Body SAR test, SAR is evaluated with receiver off mode.

State1:Single cell(Body)

State2:Single cell(Head)

State3:Simultaneous launch (Body:2.4G wifi+WWAN，5G wifi+WWAN，BT+WWAN)

State4:Simultaneous launch (Head:2.4G wifi+WWAN，5G wifi+WWAN，BT+WWAN)

State5:Simultaneous launch (Body:5G wifi+WWAN+BT)

State6:Simultaneous launch (Head:5G wifi+WWAN+BT)

Original Power(Ant 1):

Band: GSM850	Burst Average Power (dBm)			Frame Average Power (dBm)		
Channel	128	190	251	128	190	251
GSM (CS)	32.70	32.66	32.67	23.70	23.66	23.67
GPRS/EDGE (GMSK, 1 Tx slot)	32.73	32.63	32.67	23.73	23.63	23.67
GPRS/EDGE (GMSK, 2 Tx slots)	30.32	30.28	30.24	24.32	24.28	24.24
GPRS/EDGE (GMSK, 3 Tx slots)	28.30	28.26	28.24	24.04	24.00	23.98
GPRS/EDGE (GMSK, 4 Tx slots)	27.11	27.10	27.10	24.11	24.10	24.10

EDGE (8PSK, 1 Tx slot)	27.26	27.31	27.12	18.26	18.31	18.12
EDGE (8PSK, 2 Tx slots)	25.03	25.10	24.93	19.03	19.10	18.93
EDGE (8PSK, 3 Tx slots)	22.75	22.82	22.67	18.49	18.56	18.41
EDGE (8PSK, 4 Tx slots)	21.95	22.02	21.90	18.95	19.02	18.90

Remark:

The conducted power of GSM850 is measured with RMS detector.

Frame-averaged output power was calculated from the measured burst-averaged output power by converting the slot powers into linear units and calculating the energy over 8 timeslots.

Per KDB941225 D01v03, the bolded GPRS 2 Tx mode was selected as the primary mode for SAR testing according to the highest frame- averaged output power table.

Band: DCS1900	Burst Average Power (dBm)			Frame Average Power (dBm)		
Channel	513	661	810	513	661	810
GSM (CS)	30.10	29.88	30.01	21.10	20.88	21.01
GPRS/EDGE (GMSK, 1 Tx slot)	30.10	29.86	30.01	21.10	20.86	21.01
GPRS/EDGE (GMSK, 2 Tx slots)	27.44	27.46	27.43	21.44	21.46	21.43
GPRS/EDGE (GMSK, 3 Tx slots)	25.41	25.45	25.42	21.15	21.19	21.16
GPRS/EDGE (GMSK, 4 Tx slots)	24.41	24.36	24.43	21.41	21.36	21.43
EDGE (8PSK, 1 Tx slot)	26.53	26.49	26.79	17.53	17.49	17.79
EDGE (8PSK, 2 Tx slots)	24.54	24.53	24.88	18.54	18.53	18.88
EDGE (8PSK, 3 Tx slots)	22.46	22.37	22.85	18.20	18.11	18.59
EDGE (8PSK, 4 Tx slots)	21.79	21.76	22.19	18.79	18.76	19.19

Remark:

1) The conducted power of GSM1900 is measured with RMS detector.

2) Frame-averaged output power was calculated from the measured burst-averaged output power by converting the slot powers into linear units and calculating the energy over 8 timeslots.

Per KDB941225 D01v03, the bolded GPRS 2 Tx mode was selected as the primary mode for SAR testing according to the highest frame- averaged output power table.

UMTS Band V		Conducted Power (dBm)		
		4133	4175	4232
WCDMA	12.2kbps RMC	24.22	24.21	24.23
	64kbps RMC	24.15	24.16	24.18
	144kbps RMC	24.17	24.09	24.23
	384kbps RMC	24.21	24.20	24.23
HSDPA	Subtest 1	23.19	23.17	23.22
	Subtest 2	22.39	22.43	22.48
	Subtest 3	22.45	22.36	22.44
	Subtest 4	22.33	22.39	22.33
HSUPA	Subtest 1	22.30	21.81	21.83
	Subtest 2	21.89	21.92	21.96
	Subtest 3	22.80	22.82	22.92
	Subtest 4	21.42	21.40	21.48
	Subtest 5	22.80	22.84	22.96

Remark:

The conducted power of UMTS Band V is measured with RMS detector

Per KDB 941225 D01v03, When the maximum output power and tune-up tolerance specified for production units in a secondary mode is ≤0.25 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 adjusted SAR is ≤ 1.2W/kg, SAR measurement is not required for the secondary mode.

LTE Band 5

Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel
				20407	20525	20643
1.4MHz	QPSK	1	0	23.58	23.62	23.51
		1	13	23.59	23.42	23.51
		1	24	23.43	23.42	23.43
		12	0	22.35	22.32	22.34
		12	6	22.52	22.25	22.37
		12	13	22.32	22.35	22.48
		25	0	22.36	22.34	22.50
	16QAM	1	0	22.03	22.03	22.14
		1	13	22.33	22.02	22.11
		1	24	21.98	21.90	22.34
		12	0	21.39	21.23	21.37
		12	6	21.39	21.30	21.37
		12	13	21.36	21.36	21.39
		25	0	21.81	21.33	21.57
	64QAM	1	0	21.28	21.40	21.27
		1	13	21.22	21.39	21.41
		1	24	21.32	21.38	21.22
		12	0	20.06	20.07	20.07
		12	6	20.35	20.13	20.25
		12	13	20.15	20.27	20.15
		25	0	20.25	20.30	20.25
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel
				20415	20525	20635
3MHz	QPSK	1	0	23.58	23.49	23.41
		1	13	23.49	23.53	23.41
		1	24	23.61	23.42	23.50
		12	0	22.21	22.49	22.34
		12	6	22.56	22.33	22.41
		12	13	22.32	22.49	22.48
		25	0	22.34	22.25	22.38

	16QAM	1	0	22.06	22.25	22.20
		1	13	22.33	21.78	22.20
		1	24	22.17	22.19	22.12
		12	0	21.30	21.59	21.40
		12	6	21.56	21.40	21.57
		12	13	21.59	21.88	21.37
		25	0	21.40	21.43	21.23
	64QAM	1	0	21.22	21.27	21.44
		1	13	21.39	21.33	21.24
		1	24	21.22	21.34	21.26
		12	0	20.24	20.37	20.25
		12	6	20.35	20.15	20.23
		12	13	20.13	20.23	20.34
		25	0	20.35	20.25	20.15

Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel
				20425	20525	20625
5MHz	QPSK	1	0	23.36	23.52	23.58
		1	13	23.41	23.49	23.40
		1	24	23.50	23.50	23.57
		12	0	22.24	22.22	22.29
		12	6	22.33	22.39	22.38
		12	13	22.27	22.15	22.27
		25	0	22.29	22.40	22.40
	16QAM	1	0	21.77	21.67	22.08
		1	13	21.86	21.90	21.67
		1	24	21.95	22.03	22.00
		12	0	21.67	21.16	21.36
		12	6	21.45	21.53	21.61
		12	13	21.10	21.12	20.87
		25	0	21.09	21.15	21.10
	64QAM	1	0	21.43	21.37	21.17
		1	13	21.39	21.31	21.30
		1	24	21.43	21.21	21.32
		12	0	20.15	20.11	20.27
		12	6	20.24	20.11	20.09
		12	13	20.03	19.96	20.07
		25	0	20.05	20.25	20.06
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel
				20450	20525	20600
10MHz	QPSK	1	0	23.53	23.47	23.51
		1	13	23.74	23.77	23.75
		1	24	23.49	23.50	23.61
		12	0	22.35	22.36	22.39
		12	6	22.42	22.37	22.45
		12	13	22.45	22.52	22.25
		25	0	22.52	22.49	22.48
	16QAM	1	0	22.17	21.90	22.01

		1	13	22.19	22.25	22.19
		1	24	21.97	22.27	22.20
		12	0	21.23	21.08	21.81
		12	6	21.57	21.88	21.74
		12	13	21.36	21.30	21.30
		25	0	21.47	21.23	21.81
	64QAM	1	0	21.41	21.42	21.22
		1	13	21.55	21.57	21.55
		1	24	21.22	21.27	21.22
		12	0	20.15	20.15	20.23
		12	6	20.17	20.24	20.27
		12	13	20.16	20.27	20.30
		25	0	20.17	20.07	20.23

LTE Band 7

Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel
				20775	21100	21425
5MHz	QPSK	1	0	23.19	23.06	23.04
		1	13	23.16	23.17	23.06
		1	24	22.95	23.17	23.06
		12	0	21.92	22.13	22.06
		12	6	21.82	22.07	21.94
		12	13	22.08	21.94	21.96
		25	0	21.94	21.82	21.92
	16QAM	1	0	21.86	21.60	21.59
		1	13	21.76	21.65	21.78
		1	24	21.78	21.82	21.73
		12	0	21.24	20.97	20.69
		12	6	20.81	20.78	21.30
		12	13	20.78	21.04	20.76
		25	0	21.30	21.17	20.97
	64QAM	1	0	20.49	20.73	20.49
		1	13	20.67	20.64	20.66
		1	24	20.73	20.56	20.45
		12	0	19.36	19.55	19.26
		12	6	19.62	19.40	19.32
		12	13	19.64	19.32	19.47
		25	0	19.36	19.60	19.32
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel
				20800	21100	21400
10MHz	QPSK	1	0	23.05	22.93	23.05
		1	13	22.95	23.15	23.03
		1	24	23.02	22.93	23.03
		12	0	21.72	21.82	21.91
		12	6	21.98	21.84	21.74
		12	13	21.86	21.82	21.85
		25	0	21.82	21.84	21.86

	16QAM	1	0	21.49	21.76	21.67
		1	13	21.75	21.46	21.35
		1	24	21.61	21.34	21.63
		12	0	21.04	20.55	20.60
		12	6	20.95	20.96	21.08
		12	13	21.04	20.83	20.55
		25	0	20.95	20.68	20.63
	64QAM	1	0	20.58	20.65	20.48
		1	13	20.67	20.44	20.58
		1	24	20.45	20.48	20.65
		12	0	19.23	19.38	19.23
		12	6	19.52	19.25	19.42
		12	13	19.22	19.18	19.16
		25	0	19.37	19.32	19.42

Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel
				20825	21100	21375
15MHz	QPSK	1	0	22.98	23.18	23.03
		1	13	23.16	22.94	23.15
		1	24	23.20	23.16	23.13
		12	0	21.74	21.97	21.74
		12	6	22.03	21.74	21.91
		12	13	21.91	22.03	21.74
		25	0	21.86	21.97	21.72
	16QAM	1	0	21.63	21.34	21.63
		1	13	21.71	21.75	21.65
		1	24	21.41	21.63	21.41
		12	0	20.76	21.02	20.68
		12	6	21.03	20.96	20.66
		12	13	20.48	21.13	21.04
		25	0	21.13	21.04	20.96
	64QAM	1	0	20.50	20.48	20.44
		1	13	20.66	20.53	20.65
		1	24	20.53	20.55	20.66
		12	0	19.22	19.50	19.54
		12	6	19.50	19.47	19.37
		12	13	19.47	19.26	19.50
		25	0	19.53	19.45	19.31
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel
				20850	21100	21350
20MHz	QPSK	1	0	23.09	23.17	23.00
		1	50	23.34	23.31	23.34
		1	99	22.96	23.19	23.06
		50	0	22.13	21.84	21.92
		50	25	21.94	22.13	21.94
		50	50	21.96	21.84	21.81
		100	0	22.06	21.86	21.92

	16QAM	1	0	21.52	21.76	21.59
		1	50	21.59	21.52	21.45
		1	99	21.38	21.52	21.65
		50	0	21.23	20.76	20.75
		50	25	20.78	21.24	21.17
		50	50	20.97	20.89	21.15
		100	0	20.89	20.97	21.30
	64QAM	1	0	20.66	20.67	20.59
		1	50	20.84	20.85	20.86
		1	99	20.66	20.50	20.55
		50	0	19.47	19.49	19.33
		50	25	19.26	19.36	19.47
		50	50	19.26	19.35	19.41
		100	0	19.55	19.57	19.55

LTE Band 38

Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel
				37775	38000	38225
5MHz	QPSK	1	0	22.92	23.09	22.94
		1	13	23.07	23.02	23.10
		1	24	23.15	23.10	23.01
		12	0	21.89	21.88	22.01
		12	6	22.05	22.10	21.89
		12	13	21.80	21.74	22.01
		25	0	21.97	21.80	21.80
	16QAM	1	0	21.68	21.65	21.63
		1	13	21.74	21.74	21.67
		1	24	21.63	21.65	21.68
		12	0	21.05	20.99	20.96
		12	6	20.82	21.20	20.97
		12	13	21.25	20.96	20.97
		25	0	21.25	21.26	21.28
	64QAM	1	0	20.71	20.71	20.71
		1	13	20.66	20.65	20.89
		1	24	20.93	20.82	20.65
		12	0	19.71	19.67	19.45
		12	6	19.65	19.65	19.87
		12	13	19.74	19.50	19.50
		25	0	19.74	19.65	19.45
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel
				37800	38000	38200
10MHz	QPSK	1	0	23.01	23.15	22.93
		1	13	23.15	23.08	23.13
		1	24	23.08	23.18	23.18
		12	0	21.91	21.82	21.88
		12	6	22.00	21.89	21.79
		12	13	21.87	21.96	21.78

		25	0	21.91	21.82	22.00
	16QAM	1	0	21.79	21.30	21.56
		1	13	21.86	21.47	21.30
		1	24	21.55	21.54	21.86
		12	0	20.47	20.93	20.64
		12	6	21.15	20.82	20.76
		12	13	20.94	21.16	20.82
		25	0	20.47	21.15	20.76
	64QAM	1	0	20.71	20.72	20.73
		1	13	20.92	20.79	20.79
		1	24	20.80	20.79	20.70
		12	0	19.43	19.59	19.59
		12	6	19.53	19.67	19.71
		12	13	19.40	19.46	19.46
		25	0	19.46	19.59	19.64

Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel
				37825	38000	38175
15MHz	QPSK	1	0	22.95	22.91	23.11
		1	13	23.11	22.93	23.11
		1	24	23.08	23.11	22.93
		12	0	21.78	21.63	21.99
		12	6	21.88	21.87	21.82
		12	13	21.78	21.91	21.95
		25	0	21.95	21.78	21.78
	16QAM	1	0	21.52	21.72	21.73
		1	13	21.52	21.55	21.26
		1	24	21.52	21.55	21.63
		12	0	20.54	20.59	21.24
		12	6	21.05	21.05	20.51
		12	13	20.78	20.78	20.75
		25	0	21.07	20.61	20.47
	64QAM	1	0	20.64	20.79	20.70
		1	13	20.65	20.72	20.73
		1	24	20.79	20.65	20.76
		12	0	19.59	19.64	19.46
		12	6	19.43	19.56	19.71
		12	13	19.46	19.60	19.66
		25	0	19.66	19.71	19.35
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel
				37850	38000	38150
20MHz	QPSK	1	0	23.11	23.02	22.96
		1	50	23.31	23.33	23.38
		1	99	23.11	23.10	22.94
		50	0	22.01	21.88	22.17
		50	25	22.05	22.09	21.92
		50	50	22.00	21.74	21.94
		100	0	22.01	21.75	21.73
	16QAM	1	0	21.84	21.74	21.65

		1	50	21.39	21.90	21.74
		1	99	21.63	21.68	21.66
		50	0	21.05	21.15	21.05
		50	25	20.98	20.82	21.25
		50	50	20.80	20.97	20.97
		100	0	20.68	20.75	20.99
	64QAM	1	0	20.77	20.77	20.66
		1	50	21.10	21.08	21.04
		1	99	20.89	20.82	20.77
		50	0	19.56	19.87	19.59
		50	25	19.49	19.87	19.50
		50	50	19.71	19.67	19.56
		100	0	19.45	19.69	19.74

LTE Band 41

Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel
				39675	40620	41565
5MHz	QPSK	1	0	23.11	23.14	23.18
		1	13	23.15	23.18	23.19
		1	24	23.14	23.15	23.17
		12	0	22.23	22.23	22.24
		12	6	22.25	22.22	22.20
		12	13	22.27	22.24	22.16
		25	0	22.23	22.29	22.12
	16QAM	1	0	22.27	22.29	22.09
		1	13	22.27	22.29	22.07
		1	24	22.24	22.24	22.06
		12	0	21.45	21.36	21.20
		12	6	21.49	21.40	21.20
		12	13	21.48	21.40	21.20
		25	0	21.52	21.36	21.17
	64QAM	1	0	21.51	21.31	21.22
		1	13	21.54	21.26	21.23
		1	24	21.49	21.23	21.22
		12	0	20.50	20.14	20.20
		12	6	20.52	20.11	20.24
		12	13	20.53	20.15	20.20
		25	0	20.49	20.13	20.19
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel
				39700	40620	41540
10MHz	QPSK	1	0	23.17	23.22	23.14
		1	25	23.21	23.25	23.18
		1	49	23.17	23.22	23.17
		25	0	22.20	22.25	22.23
		25	12	22.23	22.26	22.18
		25	25	22.25	22.21	22.16
		50	0	22.27	22.26	22.16

	16QAM	1	0	22.30	22.27	22.15
		1	25	22.29	22.23	22.13
		1	49	22.25	22.21	22.16
		25	0	21.31	21.27	21.30
		25	12	21.25	21.30	21.31
		25	25	21.28	21.31	21.31
		50	0	21.33	21.35	21.35
	64QAM	1	0	21.36	21.31	21.36
		1	25	21.38	21.34	21.35
		1	49	21.40	21.32	21.37
		25	0	20.37	20.25	20.31
		25	12	20.41	20.24	20.27
		25	25	20.38	20.19	20.24
		50	0	20.35	20.21	20.28
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel
				39725	40620	41515
15MHz	QPSK	1	0	23.18	23.21	23.16
		1	37	23.19	23.23	23.17
		1	74	23.17	23.22	23.12
		36	0	22.21	22.33	22.37
		36	20	22.22	22.34	22.41
		36	39	22.26	22.38	22.36
		75	0	22.23	22.37	22.32
	16QAM	1	0	22.28	22.41	22.33
		1	37	22.30	22.40	22.32
		1	74	22.28	22.39	22.33
		36	0	21.48	21.60	21.46
		36	20	21.46	21.57	21.45
		36	39	21.49	21.53	21.46
		75	0	21.53	21.49	21.50
	64QAM	1	0	21.54	21.50	21.50
		1	37	21.59	21.51	21.48
		1	74	21.59	21.52	21.50

		36	0	20.50	20.50	20.46
		36	20	20.46	20.49	20.42
		36	39	20.46	20.48	20.38
		75	0	20.42	20.53	20.41
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel
				39750	40620	41490
20MHz	QPSK	1	0	23.24	23.21	23.18
		1	50	23.24	23.25	23.19
		1	99	23.24	23.24	23.19
		50	0	22.35	22.44	22.44
		50	25	22.31	22.46	22.47
		50	50	22.27	22.45	22.46
		100	0	22.25	22.43	22.50
	16QAM	1	0	22.21	22.46	22.52
		1	50	22.21	22.49	22.53
		1	99	22.23	22.47	22.49
		50	0	21.26	21.62	21.68
		50	25	21.28	21.63	21.71
		50	50	21.33	21.60	21.70
		100	0	21.36	21.61	21.73
	64QAM	1	0	21.37	21.62	21.76
		1	50	21.39	21.58	21.75
		1	99	21.34	21.54	21.72
		50	0	20.33	20.47	20.63
		50	25	20.28	20.44	20.63
		50	50	20.28	20.44	20.64
		100	0	20.25	20.49	20.67

Original Power(Ant 0):

Band: GSM850	Burst Average Power (dBm)			Frame Average Power (dBm)		
Channel	128	190	251	128	190	251
GSM (CS)	32.77	32.67	32.62	23.77	23.67	23.62
GPRS/EDGE (GMSK, 1 Tx slot)	32.81	32.67	32.60	23.81	23.67	23.60
GPRS/EDGE (GMSK, 2 Tx slots)	30.44	30.29	30.21	24.44	24.29	24.21
GPRS/EDGE (GMSK, 3 Tx slots)	28.42	28.26	28.21	24.16	24.00	23.95
GPRS/EDGE (GMSK, 4 Tx slots)	27.26	27.17	27.10	24.26	24.17	24.10
EDGE (8PSK, 1 Tx slot)	27.59	27.57	27.25	18.59	18.57	18.25
EDGE (8PSK, 2 Tx slots)	25.33	25.35	25.08	19.33	19.35	19.08
EDGE (8PSK, 3 Tx slots)	23.07	23.03	22.82	18.81	18.77	18.56
EDGE (8PSK, 4 Tx slots)	22.27	22.26	22.06	19.27	19.26	19.06

Remark:

The conducted power of GSM850 is measured with RMS detector.

Frame-averaged output power was calculated from the measured burst-averaged output power by converting the slot powers into linear units and calculating the energy over 8 timeslots.

Per KDB941225 D01v03, the bolded GPRS 2 Tx mode was selected as the primary mode for SAR testing according to the highest frame- averaged output power table.

Band: DCS1900	Burst Average Power (dBm)			Frame Average Power (dBm)		
Channel	513	661	810	513	661	810
GSM (CS)	29.87	29.67	29.90	20.87	20.67	20.90
GPRS/EDGE (GMSK, 1 Tx slot)	29.88	29.63	29.88	20.88	20.63	20.88
GPRS/EDGE (GMSK, 2 Tx slots)	27.41	27.21	27.49	21.41	21.21	21.49
GPRS/EDGE (GMSK, 3 Tx slots)	25.43	25.19	25.46	21.17	20.93	21.20
GPRS/EDGE (GMSK, 4 Tx slots)	24.34	24.10	24.40	21.34	21.10	21.40
EDGE (8PSK, 1 Tx slot)	26.43	26.25	26.61	17.43	17.25	17.61
EDGE (8PSK, 2 Tx slots)	24.46	24.30	24.66	18.46	18.30	18.66
EDGE (8PSK, 3 Tx slots)	22.22	22.19	22.56	17.96	17.93	18.30
EDGE (8PSK, 4 Tx slots)	21.62	21.51	21.88	18.62	18.51	18.88

Remark:

The conducted power of GSM1900 is measured with RMS detector.

Frame-averaged output power was calculated from the measured burst-averaged output power by converting the slot powers into linear units and calculating the energy over 8 timeslots.

Per KDB941225 D01v03, the bolded GPRS 2 Tx mode was selected as the primary mode for SAR testing according to the highest frame- averaged output power table.

UMTS Band V		Conducted Power (dBm)		
		4133	4175	4232
WCDMA	12.2kbps RMC	24.20	24.19	24.20
	64kbps RMC	24.13	24.14	24.15
	144kbps RMC	24.15	24.07	24.20
	384kbps RMC	24.19	24.18	24.20
HSDPA	Subtest 1	23.18	23.17	23.23
	Subtest 2	22.45	22.44	22.50
	Subtest 3	22.39	22.48	22.46
	Subtest 4	22.41	22.43	22.38
HSUPA	Subtest 1	22.29	21.79	21.88
	Subtest 2	21.91	21.96	21.96
	Subtest 3	22.85	22.84	22.92
	Subtest 4	21.44	21.45	21.49
	Subtest 5	22.86	22.90	22.94

Remark:

1) The conducted power of UMTS Band V is measured with RMS detector

2)Per KDB 941225 D01v03, When the maximum output power and tune-up tolerance specified for production units in a secondary mode is ≤0.25 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 adjusted SAR is ≤ 1.2W/kg, SAR measurement is not required for the secondary mode.

LTE Band 5

Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel
				20407	20525	20643
1.4MHz	QPSK	1	0	22.93	22.87	22.79
		1	13	22.75	22.84	22.82
		1	24	22.93	22.78	22.76
		12	0	21.92	21.69	21.92
		12	6	21.92	21.83	21.65
		12	13	21.76	21.92	21.88
		25	0	21.76	21.76	21.76
	16QAM	1	0	21.39	21.42	21.48
		1	13	21.61	21.55	21.44
		1	24	21.64	21.64	21.48
		12	0	20.73	21.00	21.05
		12	6	21.02	20.70	20.57
		12	13	20.73	20.94	20.70
		25	0	21.02	20.86	20.87
	64QAM	1	0	21.26	21.18	21.24
		1	13	21.18	21.20	21.39
		1	24	21.19	21.20	21.19
		12	0	20.16	20.15	20.25
		12	6	20.21	20.13	20.21
		12	13	20.18	19.93	20.17
		25	0	20.23	19.99	20.23
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel
				20415	20525	20635
3MHz	QPSK	1	0	22.75	22.84	22.78
		1	13	22.93	22.84	22.80
		1	24	22.84	22.79	22.78
		12	0	21.69	21.76	21.69
		12	6	21.90	21.76	21.88
		12	13	21.69	21.88	21.59
		25	0	21.88	21.65	21.59

	16QAM	1	0	21.48	21.42	21.39
		1	13	21.48	21.37	21.56
		1	24	21.39	21.53	21.53
		12	0	21.04	20.84	20.87
		12	6	20.73	20.77	20.74
		12	13	20.73	20.58	20.81
		25	0	21.04	21.00	20.57
	64QAM	1	0	21.42	21.16	21.38
		1	13	21.19	21.32	21.42
		1	24	21.32	21.16	21.34
		12	0	20.10	19.99	20.02
		12	6	20.35	20.28	20.16
		12	13	20.17	20.11	20.01
		25	0	20.28	20.37	20.06

Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel
				20425	20525	20625
5MHz	QPSK	1	0	22.81	22.77	22.77
		1	13	22.76	22.90	22.78
		1	24	22.77	22.82	22.74
		12	0	21.78	21.62	21.58
		12	6	21.49	21.61	21.70
		12	13	21.62	21.80	21.82
		25	0	21.82	21.76	21.59
	16QAM	1	0	21.44	21.31	21.63
		1	13	21.37	21.33	21.13
		1	24	21.58	21.30	21.10
		12	0	20.37	20.52	20.56
		12	6	20.66	20.81	20.81
		12	13	20.79	20.79	20.73
		25	0	20.96	20.57	20.57
	64QAM	1	0	21.22	21.25	21.12
		1	13	21.33	21.12	21.06
		1	24	21.20	21.22	21.05
		12	0	20.00	20.18	20.02
		12	6	19.93	19.93	20.13
		12	13	20.16	20.10	20.06
		25	0	19.96	20.06	20.18
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel
				20450	20525	20600
10MHz	QPSK	1	0	22.80	22.84	22.99
		1	13	23.13	23.16	23.15
		1	24	22.82	22.76	22.79
		12	0	21.58	21.65	21.86
		12	6	21.76	21.67	21.86
		12	13	21.76	21.72	21.83
		25	0	21.63	21.72	21.68
	16QAM	1	0	21.64	21.24	21.62

		1	13	21.55	21.37	21.37
		1	24	21.33	21.42	21.48
		12	0	21.17	21.17	20.74
		12	6	21.17	20.58	21.06
		12	13	20.73	21.00	21.02
		25	0	20.74	20.58	20.52
	64QAM	1	0	21.16	21.20	21.32
		1	13	21.53	21.26	21.26
		1	24	21.24	21.35	21.28
		12	0	20.19	20.14	20.13
		12	6	20.11	20.28	19.99
		12	13	20.20	20.06	20.06
		25	0	20.26	20.39	20.39

LTE Band 7

Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel
				20775	21100	21425
5MHz	QPSK	1	0	22.16	22.16	22.07
		1	13	22.27	22.33	22.32
		1	24	22.07	22.27	22.21
		12	0	21.09	21.17	21.10
		12	6	20.94	21.05	20.99
		12	13	21.02	21.17	20.96
		25	0	20.99	21.09	21.09
	16QAM	1	0	20.98	20.72	20.88
		1	13	21.13	20.99	20.72
		1	24	20.72	20.78	20.57
		12	0	20.30	20.21	19.88
		12	6	19.94	20.57	20.62
		12	13	20.46	20.22	20.42
		25	0	20.24	20.46	20.28
	64QAM	1	0	20.49	20.66	20.74
		1	13	20.49	20.58	20.64
		1	24	20.57	20.66	20.49
		12	0	19.48	19.37	19.53
		12	6	19.28	19.41	19.57
		12	13	19.34	19.53	19.49
		25	0	19.61	19.44	19.28
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel
				20800	21100	21400
10MHz	QPSK	1	0	22.30	22.29	22.26
		1	13	22.14	22.12	22.26
		1	24	22.20	22.31	22.12
		12	0	20.99	20.84	21.02
		12	6	21.16	20.86	21.14
		12	13	21.07	20.87	20.91
		25	0	21.16	20.92	21.02

	16QAM	1	0	20.75	20.55	20.67
		1	13	20.75	20.55	20.52
		1	24	20.73	20.73	20.63
		12	0	20.26	19.94	20.01
		12	6	19.73	20.07	19.73
		12	13	19.67	19.91	20.25
		25	0	20.10	20.26	19.94
	64QAM	1	0	20.65	20.54	20.58
		1	13	20.48	20.53	20.44
		1	24	20.55	20.57	20.56
		12	0	19.39	19.38	19.39
		12	6	19.24	19.27	19.47
		12	13	19.49	19.18	19.52
		25	0	19.54	19.50	19.38

Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel
				20825	21100	21375
15MHz	QPSK	1	0	22.05	22.30	22.25
		1	13	22.26	22.18	22.26
		1	24	22.22	22.26	22.17
		12	0	20.91	20.99	21.03
		12	6	21.01	21.06	21.14
		12	13	20.86	21.07	21.07
		25	0	20.99	21.16	20.91
	16QAM	1	0	21.02	20.61	21.02
		1	13	20.81	20.88	20.77
		1	24	20.97	20.75	20.87
		12	0	20.13	19.87	19.67
		12	6	20.36	20.07	19.82
		12	13	20.10	19.96	20.00
		25	0	20.21	20.03	19.81
	64QAM	1	0	20.72	20.43	20.48
		1	13	20.72	20.50	20.56
		1	24	20.72	20.72	20.67
		12	0	19.49	19.34	19.50
		12	6	19.38	19.52	19.27
		12	13	19.40	19.61	19.61
		25	0	19.39	19.54	19.54
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel
				20850	21100	21350
20MHz	QPSK	1	0	22.06	22.06	22.24
		1	50	22.48	22.44	22.47
		1	99	22.33	22.31	22.06
		50	0	20.96	21.17	21.16
		50	25	21.26	21.06	20.97
		50	50	20.94	21.17	21.10
		100	0	21.17	21.17	21.09

	16QAM	1	0	20.93	20.79	20.84
		1	50	21.08	20.71	20.86
		1	99	20.71	20.85	20.98
		50	0	20.31	20.62	20.24
		50	25	20.02	20.24	20.04
		50	50	19.94	20.02	20.30
		100	0	20.21	20.42	20.21
	64QAM	1	0	20.67	20.72	20.73
		1	50	20.84	20.75	20.79
		1	99	20.49	20.66	20.67
		50	0	19.61	19.37	19.61
		50	25	19.37	19.57	19.54
		50	50	19.49	19.53	19.59
		100	0	19.49	19.60	19.61

LTE Band 38

Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel
				37775	38000	38225
5MHz	QPSK	1	0	23.01	22.99	22.98
		1	13	22.91	22.98	23.01
		1	24	23.04	22.97	22.85
		12	0	21.84	21.63	21.82
		12	6	21.92	21.81	21.94
		12	13	22.00	21.73	21.66
		25	0	21.63	21.63	22.02
	16QAM	1	0	21.46	21.62	21.55
		1	13	21.71	21.75	21.46
		1	24	21.58	21.68	21.77
		12	0	20.89	20.97	21.23
		12	6	20.78	20.78	20.96
		12	13	21.21	21.24	20.65
		25	0	21.04	21.13	20.65
	64QAM	1	0	20.76	20.79	20.80
		1	13	20.86	20.85	20.85
		1	24	20.62	20.78	20.90
		12	0	19.74	19.80	19.54
		12	6	19.54	19.46	19.72
		12	13	19.69	19.72	19.72
		1	0	20.76	20.79	20.80
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel
				37800	38000	38200
10MHz	QPSK	1	0	23.01	22.90	22.95
		1	13	23.05	22.96	23.03
		1	24	22.97	22.94	22.94
		12	0	21.74	21.63	21.53
		12	6	21.54	21.82	21.82
		12	13	21.84	21.63	21.76
		25	0	21.84	21.70	21.88

	16QAM	1	0	21.29	21.60	21.66
		1	13	21.44	21.46	21.47
		1	24	21.35	21.60	21.19
		12	0	20.76	21.02	20.78
		12	6	20.81	20.60	20.92
		12	13	21.03	20.98	21.10
		25	0	20.57	20.60	20.37
	64QAM	1	0	20.75	20.79	20.89
		1	13	20.61	20.76	20.85
		1	24	20.82	20.64	20.77
		12	0	19.59	19.47	19.50
		12	6	19.70	19.59	19.70
		12	13	19.52	19.47	19.59
		25	0	19.70	19.44	19.62

Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel
				37825	38000	38175
15MHz	QPSK	1	0	23.01	23.05	22.83
		1	13	22.98	22.95	22.96
		1	24	23.03	22.95	22.95
		12	0	21.63	21.82	21.53
		12	6	21.82	21.92	21.63
		12	13	21.71	21.72	21.71
		25	0	21.90	21.79	21.82
	16QAM	1	0	21.51	21.44	21.47
		1	13	21.72	21.57	21.47
		1	24	21.33	21.30	21.44
		12	0	20.76	21.10	20.70
		12	6	20.76	20.81	20.55
		12	13	20.75	20.76	20.68
		25	0	20.78	20.56	20.56
	64QAM	1	0	20.85	20.79	20.75
		1	13	20.89	20.84	20.76
		1	24	20.82	20.83	20.77
		12	0	19.74	19.52	19.50
		12	6	19.62	19.74	19.62
		12	13	19.64	19.59	19.47
		25	0	19.36	19.74	19.52
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel
				37850	38000	38150
20MHz	QPSK	1	0	23.06	22.84	23.04
		1	50	23.19	23.21	23.22
		1	99	23.06	22.97	23.01
		50	0	21.92	21.91	21.64
		50	25	21.74	21.80	21.92
		50	50	21.93	21.87	21.80
		100	0	21.74	21.63	21.73
	16QAM	1	0	21.60	21.60	21.58

		1	50	21.30	21.46	21.71
		1	99	21.44	21.46	21.62
		50	0	20.65	20.77	20.97
		50	25	21.24	21.21	21.19
		50	50	20.76	21.21	20.78
		100	0	20.91	20.89	20.58
	64QAM	1	0	20.90	20.81	20.72
		1	50	21.05	21.06	21.01
		1	99	20.84	20.76	20.86
		50	0	19.63	19.54	19.54
		50	25	19.83	19.54	19.58
		50	50	19.83	19.84	19.59
		100	0	19.58	19.69	19.69

LTE Band 41

Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel
				39675	40620	41565
5MHz	QPSK	1	0	23.28	23.34	23.28
		1	13	23.31	23.36	23.30
		1	24	23.27	23.34	23.27
		12	0	22.43	22.40	22.32
		12	6	22.42	22.41	22.32
		12	13	22.45	22.40	22.32
		25	0	22.46	22.36	22.27
	16QAM	1	0	22.45	22.37	22.31
		1	13	22.41	22.41	22.30
		1	24	22.45	22.44	22.31
		12	0	21.62	21.52	21.54
		12	6	21.67	21.51	21.49
		12	13	21.64	21.48	21.48
		25	0	21.66	21.52	21.51
	64QAM	1	0	21.65	21.53	21.53
		1	13	21.61	21.51	21.57
		1	24	21.56	21.47	21.56
		12	0	20.48	20.41	20.58
		12	6	20.49	20.40	20.54
		12	13	20.47	20.41	20.49
		25	0	20.45	20.46	20.54
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel
				39700	40620	41540
10MHz	QPSK	1	0	23.31	23.34	23.34
		1	25	23.32	23.36	23.36
		1	49	23.28	23.34	23.33
		25	0	22.45	22.53	22.47
		25	12	22.46	22.53	22.50
		25	25	22.45	22.54	22.46
		50	0	22.49	22.57	22.41

	16QAM	1	0	22.46	22.61	22.40
		1	25	22.49	22.61	22.42
		1	49	22.52	22.58	22.44
		25	0	21.62	21.63	21.51
		25	12	21.66	21.63	21.56
		25	25	21.69	21.68	21.53
		50	0	21.71	21.72	21.51
	64QAM	1	0	21.73	21.76	21.47
		1	25	21.71	21.80	21.51
		1	49	21.69	21.84	21.49
		25	0	20.70	20.81	20.44
		25	12	20.69	20.84	20.41
		25	25	20.67	20.82	20.37
		50	0	20.67	20.84	20.35
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel
				39725	40620	41515
15MHz	QPSK	1	0	23.23	23.36	23.28
		1	37	23.28	23.36	23.32
		1	74	23.27	23.32	23.27
		36	0	22.34	22.56	22.43
		36	20	22.33	22.55	22.46
		36	39	22.38	22.51	22.44
		75	0	22.39	22.49	22.48
	16QAM	1	0	22.43	22.53	22.43
		1	37	22.40	22.48	22.43
		1	74	22.36	22.49	22.43
		36	0	21.52	21.57	21.64
		36	20	21.56	21.61	21.59
		36	39	21.57	21.56	21.64
		75	0	21.58	21.59	21.65
	64QAM	1	0	21.56	21.59	21.69
		1	37	21.61	21.63	21.73
		1	74	21.57	21.64	21.76

		36	0	20.50	20.56	20.74
		36	20	20.47	20.59	20.78
		36	39	20.50	20.63	20.82
		75	0	20.47	20.63	20.84
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel
				39750	40620	41490
20MHz	QPSK	1	0	23.31	23.34	23.28
		1	50	23.32	23.36	23.32
		1	99	23.32	23.32	23.28
		50	0	22.49	22.38	22.38
		50	25	22.51	22.34	22.38
		50	50	22.49	22.38	22.34
		100	0	22.45	22.35	22.32
	16QAM	1	0	22.46	22.31	22.35
		1	50	22.43	22.27	22.30
		1	99	22.40	22.26	22.33
		50	0	21.64	21.39	21.53
		50	25	21.68	21.44	21.55
		50	50	21.67	21.39	21.53
		100	0	21.70	21.37	21.49
	64QAM	1	0	21.68	21.40	21.50
		1	50	21.66	21.42	21.53
		1	99	21.67	21.45	21.57
		50	0	20.67	20.47	20.55
		50	25	20.67	20.48	20.59
		50	50	20.64	20.52	20.57
		100	0	20.59	20.51	20.60

power reduction(Ant1)

State2:

Band: GSM850	Burst Average Power (dBm)			Frame Average Power (dBm)		
Channel	128	190	251	128	190	251
GSM (CS)	31.63	31.50	31.55	22.63	22.50	22.55
GPRS/EDGE (GMSK, 1 Tx slot)	32.35	32.24	32.27	23.35	23.24	23.27
GPRS/EDGE (GMSK, 2 Tx slots)	29.92	29.81	29.83	23.92	23.81	23.83
GPRS/EDGE (GMSK, 3 Tx slots)	27.88	27.77	27.79	23.62	23.51	23.53
GPRS/EDGE (GMSK, 4 Tx slots)	26.75	26.66	26.68	23.75	23.66	23.68
EDGE (8PSK, 1 Tx slot)	26.75	26.57	26.42	17.75	17.57	17.42
EDGE (8PSK, 2 Tx slots)	24.71	24.65	24.52	18.71	18.65	18.52
EDGE (8PSK, 3 Tx slots)	22.57	22.56	22.40	18.31	18.30	18.14
EDGE (8PSK, 4 Tx slots)	21.84	21.84	21.67	18.84	18.84	18.67

Remark:

The conducted power of GSM850 is measured with RMS detector.

Frame-averaged output power was calculated from the measured burst-averaged output power by converting the slot powers into linear units and calculating the energy over 8 timeslots.

Per KDB941225 D01v03, the bolded GPRS 2 Tx mode was selected as the primary mode for SAR testing according to the highest frame- averaged output power table.

Band: DCS1900	Burst Average Power (dBm)			Frame Average Power (dBm)		
Channel	513	661	810	513	661	810
GSM (CS)	25.94	25.81	25.90	16.94	16.81	16.90
GPRS/EDGE (GMSK, 1 Tx slot)	29.83	29.75	29.79	20.83	20.75	20.79
GPRS/EDGE (GMSK, 2 Tx slots)	27.49	27.35	27.41	21.49	21.35	21.41
GPRS/EDGE (GMSK, 3 Tx slots)	25.47	25.35	25.40	21.21	21.09	21.14
GPRS/EDGE (GMSK, 4 Tx slots)	24.39	24.28	24.35	21.39	21.28	21.35
EDGE (8PSK, 1 Tx slot)	26.66	26.47	26.72	17.66	17.47	17.72
EDGE (8PSK, 2 Tx slots)	24.71	24.65	24.88	18.71	18.65	18.88
EDGE (8PSK, 3 Tx slots)	22.62	22.59	22.82	18.36	18.33	18.56
EDGE (8PSK, 4 Tx slots)	22.01	21.95	22.15	19.01	18.95	19.15

Remark:

The conducted power of GSM1900 is measured with RMS detector.

Frame-averaged output power was calculated from the measured burst-averaged output power by converting the slot powers into linear units and calculating the energy over 8 timeslots.

Per KDB941225 D01v03, the bolded GPRS 2 Tx mode was selected as the primary mode for SAR testing according to the highest frame- averaged output power table.

UMTS Band V		Conducted Power (dBm)		
		4133	4175	4232
WCDMA	12.2kbps RMC	21.76	21.76	21.89
	64kbps RMC	21.69	21.71	21.84
	144kbps RMC	21.71	21.64	21.89
	384kbps RMC	21.75	21.75	21.89
HSDPA	Subtest 1	20.81	20.82	20.88
	Subtest 2	20.37	20.45	20.44
	Subtest 3	20.28	20.34	20.41
	Subtest 4	20.28	20.30	20.34
HSUPA	Subtest 1	19.81	19.84	19.87
	Subtest 2	20.31	20.32	20.35
	Subtest 3	20.82	20.83	20.84
	Subtest 4	19.82	19.82	19.91
	Subtest 5	21.80	21.83	21.88

Remark:

1) The conducted power of UMTS Band V is measured with RMS detector

2)Per KDB 941225 D01v03, When the maximum output power and tune-up tolerance specified for production units in a secondary mode is ≤0.25 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 adjusted SAR is ≤ 1.2W/kg, SAR measurement is not required for the secondary mode.

LTE Band 5

Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel
				20407	20525	20643
1.4MHz	QPSK	1	0	21.71	21.67	21.58
		1	13	21.67	21.63	21.53
		1	24	21.56	21.50	21.56
		12	0	20.57	20.63	20.60
		12	6	20.31	20.31	20.38
		12	13	20.45	20.58	20.25
		25	0	20.30	20.57	20.63
	16QAM	1	0	20.39	20.49	20.17
		1	13	19.93	20.40	20.04
		1	24	20.41	20.04	20.36
		12	0	19.70	19.30	19.66
		12	6	19.36	19.43	19.85
		12	13	19.88	19.83	19.66
		25	0	19.37	19.31	19.40
	64QAM	1	0	19.58	19.86	19.58
		1	13	19.59	19.63	19.86
		1	24	19.83	19.82	19.62
		12	0	18.61	18.83	18.59
		12	6	18.71	18.52	18.71
		12	13	18.53	18.80	18.59
		25	0	18.78	18.53	18.73
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel
				20415	20525	20635
3MHz	QPSK	1	0	21.50	21.63	21.67
		1	13	21.69	21.44	21.44
		1	24	21.71	21.53	21.42
		12	0	20.42	20.29	20.32
		12	6	20.58	20.34	20.57
		12	13	20.26	20.29	20.41
		25	0	20.56	20.32	20.42

	16QAM	1	0	20.17	20.41	19.98
		1	13	20.03	20.03	20.18
		1	24	20.41	19.93	20.17
		12	0	19.74	19.28	19.87
		12	6	19.57	19.28	19.85
		12	13	19.31	19.83	19.21
		25	0	19.95	19.84	19.43
	64QAM	1	0	19.62	19.63	19.86
		1	13	19.58	19.72	19.63
		1	24	19.74	19.80	19.63
		12	0	18.78	18.56	18.71
		12	6	18.69	18.73	18.53
		12	13	18.52	18.56	18.56
		25	0	18.53	18.71	18.84

Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel
				20425	20525	20625
5MHz	QPSK	1	0	21.41	21.42	21.60
		1	13	21.41	21.41	21.67
		1	24	21.60	21.42	21.67
		12	0	20.47	20.31	20.22
		12	6	20.57	20.22	20.21
		12	13	20.54	20.46	20.50
		25	0	20.31	20.32	20.48
	16QAM	1	0	20.35	20.25	20.06
		1	13	19.90	19.87	20.19
		1	24	20.19	19.94	20.25
		12	0	19.66	19.63	19.62
		12	6	19.50	19.66	19.63
		12	13	19.22	19.07	19.49
		25	0	19.63	19.15	19.14
	64QAM	1	0	19.84	19.87	19.61
		1	13	19.62	19.75	19.80
		1	24	19.59	19.73	19.85
		12	0	18.63	18.61	18.49
		12	6	18.63	18.43	18.51
		12	13	18.42	18.63	18.59
		25	0	18.68	18.36	18.71
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel
				20450	20525	20600
10MHz	QPSK	1	0	21.68	21.67	21.68
		1	13	21.82	21.83	21.81
		1	24	21.43	21.69	21.69
		12	0	20.34	20.42	20.42
		12	6	20.41	20.67	20.42
		12	13	20.57	20.34	20.62
		25	0	20.57	20.42	20.25
	16QAM	1	0	19.97	19.93	19.97

		1	13	20.06	20.40	20.24
		1	24	20.40	20.46	20.46
		12	0	19.35	19.31	19.57
		12	6	19.98	19.85	19.40
		12	13	19.45	19.71	19.72
		25	0	19.74	19.72	19.66
	64QAM	1	0	19.83	19.64	19.64
		1	13	19.98	20.02	19.98
		1	24	19.58	19.62	19.62
		12	0	18.72	18.46	18.46
		12	6	18.73	18.60	18.81
		12	13	18.44	18.52	18.73
		25	0	18.56	18.46	18.83

LTE Band 7

Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel
				20775	21100	21425
5MHz	QPSK	1	0	16.20	16.25	16.32
		1	13	16.31	16.30	16.33
		1	24	16.13	16.14	16.13
		12	0	15.28	14.96	14.94
		12	6	15.04	15.17	15.26
		12	13	14.89	14.96	15.15
		25	0	15.13	15.17	15.24
	16QAM	1	0	15.00	14.83	14.99
		1	13	15.04	14.66	15.03
		1	24	14.95	14.83	14.76
		12	0	14.17	14.34	14.42
		12	6	14.34	14.41	14.42
		12	13	14.17	14.07	14.21
		25	0	14.56	14.46	14.42
	64QAM	1	0	14.70	14.45	14.65
		1	13	14.49	14.49	14.46
		1	24	14.48	14.46	14.63
		12	0	13.59	13.42	13.40
		12	6	13.61	13.55	13.61
		12	13	13.66	13.50	13.31
		25	0	13.64	13.53	13.55
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel
				20800	21100	21400
10MHz	QPSK	1	0	16.27	16.13	16.24
		1	13	16.17	16.27	16.08
		1	24	16.13	16.24	16.14
		12	0	15.07	15.13	15.04
		12	6	14.96	14.98	15.12
		12	13	15.05	14.88	15.09
		25	0	15.13	15.15	15.19

	16QAM	1	0	14.99	14.84	14.63
		1	13	14.92	14.46	14.84
		1	24	14.63	14.92	14.70
		12	0	14.21	13.98	13.98
		12	6	14.25	13.96	14.00
		12	13	14.21	14.36	14.13
		25	0	13.91	13.91	14.21
	64QAM	1	0	14.54	14.45	14.44
		1	13	14.57	14.62	14.55
		1	24	14.59	14.69	14.45
		12	0	13.56	13.40	13.45
		12	6	13.36	13.24	13.56
		12	13	13.36	13.45	13.51
		25	0	13.45	13.36	13.42

Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel
				20825	21100	21375
15MHz	QPSK	1	0	16.22	16.24	16.27
		1	13	16.29	16.08	16.33
		1	24	16.29	16.29	16.31
		12	0	14.98	14.79	14.96
		12	6	15.19	15.12	15.07
		12	13	15.15	14.99	15.12
		25	0	15.14	14.85	14.88
	16QAM	1	0	14.71	14.71	14.72
		1	13	14.72	14.70	14.65
		1	24	14.87	14.93	14.72
		12	0	14.21	14.21	14.35
		12	6	14.23	14.15	14.21
		12	13	14.36	14.23	14.21
		25	0	14.21	14.21	14.21
	64QAM	1	0	14.72	14.45	14.72
		1	13	14.45	14.44	14.54
		1	24	14.70	14.48	14.59
		12	0	13.32	13.36	13.56
		12	6	13.42	13.32	13.43
		12	13	13.49	13.54	13.48
		25	0	13.30	13.49	13.56
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel
				20850	21100	21350
20MHz	QPSK	1	0	16.23	16.36	16.30
		1	50	16.47	16.52	16.49
		1	99	16.28	16.23	16.15
		50	0	14.95	15.09	15.25
		50	25	15.08	15.13	14.95
		50	50	15.17	15.09	15.25
		100	0	15.04	15.17	14.89

	16QAM	1	0	14.77	14.61	14.83
		1	50	14.76	14.99	14.76
		1	99	15.04	14.76	14.98
		50	0	13.84	14.21	14.34
		50	25	13.95	14.21	14.07
		50	50	14.44	14.02	14.10
		100	0	14.17	14.12	14.08
	64QAM	1	0	14.66	14.65	14.49
		1	50	14.87	14.85	14.88
		1	99	14.63	14.65	14.45
		50	0	13.34	13.52	13.39
		50	25	13.59	13.53	13.34
		50	50	13.58	13.28	13.39
		100	0	13.39	13.55	13.42

LTE Band 38

Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel
				37775	38000	38225
5MHz	QPSK	1	0	19.70	19.74	19.74
		1	13	19.87	19.79	19.87
		1	24	19.70	19.84	19.91
		12	0	18.65	18.70	18.64
		12	6	18.57	18.65	18.78
		12	13	18.75	18.53	18.68
		25	0	18.55	18.71	18.71
	16QAM	1	0	18.27	18.57	18.50
		1	13	18.21	18.44	18.21
		1	24	18.44	18.26	18.23
		12	0	18.02	17.79	17.97
		12	6	17.92	17.59	17.57
		12	13	17.65	17.50	17.65
		25	0	17.68	17.69	17.85
	64QAM	1	0	17.92	17.77	17.73
		1	13	17.81	17.73	17.92
		1	24	17.80	17.74	17.85
		12	0	16.64	16.60	16.85
		12	6	16.60	16.85	16.77
		12	13	16.73	16.79	16.69
		25	0	16.61	16.66	16.84
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel
				37800	38000	38200
10MHz	QPSK	1	0	19.87	19.88	19.87
		1	13	19.83	19.80	19.73
		1	24	19.69	19.69	19.91
		12	0	18.49	18.53	18.61
		12	6	18.46	18.57	18.45
		12	13	18.67	18.55	18.47
		25	0	18.47	18.68	18.46

	16QAM	1	0	18.18	18.26	18.15
		1	13	18.18	18.39	18.16
		1	24	18.39	18.18	18.15
		12	0	17.40	17.58	17.41
		12	6	17.44	17.47	17.85
		12	13	17.38	17.40	17.60
		25	0	17.60	17.38	17.60
	64QAM	1	0	17.83	17.77	17.82
		1	13	17.87	17.87	17.78
		1	24	17.82	17.67	17.87
		12	0	16.63	16.53	16.69
		12	6	16.66	16.37	16.64
		12	13	16.53	16.64	16.49
		25	0	16.65	16.71	16.65

Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel
				37825	38000	38175
15MHz	QPSK	1	0	19.69	19.88	19.90
		1	13	19.73	19.75	19.67
		1	24	19.90	19.78	19.74
		12	0	18.66	18.46	18.48
		12	6	18.70	18.55	18.53
		12	13	18.46	18.47	18.72
		25	0	18.53	18.64	18.55
	16QAM	1	0	18.46	18.41	18.10
		1	13	18.09	18.10	18.18
		1	24	18.19	18.09	18.39
		12	0	17.38	17.47	17.58
		12	6	17.60	17.79	17.85
		12	13	17.51	17.38	17.51
		25	0	17.36	17.29	17.40
	64QAM	1	0	17.89	17.91	17.88
		1	13	17.82	17.71	17.71
		1	24	17.71	17.87	17.78
		12	0	16.63	16.53	16.64
		12	6	16.72	16.57	16.66
		12	13	16.67	16.61	16.65
		25	0	16.66	16.37	16.53
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel
				37850	38000	38150
20MHz	QPSK	1	0	19.88	19.79	19.84
		1	50	20.05	20.09	20.05
		1	99	19.78	19.79	19.91
		50	0	18.57	18.58	18.59
		50	25	18.77	18.80	18.77
		50	50	18.68	18.52	18.59
		100	0	18.77	18.59	18.58
	16QAM	1	0	18.40	18.26	18.50

		1	50	18.50	18.44	18.23
		1	99	18.40	18.27	18.35
		50	0	17.72	17.59	17.97
		50	25	17.94	17.92	17.81
		50	50	17.62	17.61	17.69
		100	0	17.79	18.02	17.65
	64QAM	1	0	17.77	17.83	17.81
		1	50	18.07	18.07	18.11
		1	99	17.93	17.68	17.89
		50	0	16.63	16.53	16.75
		50	25	16.65	16.81	16.75
		50	50	16.82	16.76	16.63
		100	0	16.71	16.75	16.53

LTE Band 41

Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel
				39675	40620	41565
5MHz	QPSK	1	0	20.05	20.09	20.03
		1	13	20.09	20.13	20.03
		1	24	20.08	20.09	20.03
		12	0	19.27	19.11	19.09
		12	6	19.27	19.09	19.12
		12	13	19.32	19.07	19.12
		25	0	19.32	19.05	19.12
	16QAM	1	0	19.31	19.08	19.16
		1	13	19.31	19.09	19.19
		1	24	19.31	19.09	19.21
		12	0	18.39	18.28	18.41
		12	6	18.44	18.31	18.45
		12	13	18.43	18.28	18.44
		25	0	18.40	18.27	18.40
	64QAM	1	0	18.42	18.22	18.36
		1	13	18.45	18.26	18.32
		1	24	18.50	18.26	18.34
		12	0	17.49	17.24	17.28
		12	6	17.54	17.25	17.24
		12	13	17.56	17.24	17.27
		25	0	17.53	17.20	17.24
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel
				39700	40620	41540
10MHz	QPSK	1	0	20.02	20.09	19.98
		1	25	20.04	20.09	20.01
		1	49	20.04	20.08	20.01
		25	0	19.05	19.23	19.12
		25	12	19.01	19.21	19.09
		25	25	18.96	19.24	19.11
		50	0	18.98	19.23	19.14

	16QAM	1	0	18.97	19.18	19.17
		1	25	18.98	19.20	19.12
		1	49	18.94	19.23	19.11
		25	0	18.15	18.43	18.16
		25	12	18.17	18.38	18.10
		25	25	18.14	18.37	18.11
		50	0	18.12	18.35	18.12
	64QAM	1	0	18.12	18.32	18.09
		1	25	18.07	18.35	18.13
		1	49	18.10	18.30	18.12
		25	0	17.06	17.21	17.11
		25	12	17.02	17.22	17.14
		25	25	17.06	17.23	17.13
		50	0	17.05	17.26	17.15
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel
				39725	40620	41515
15MHz	QPSK	1	0	20.03	20.09	20.05
		1	37	20.07	20.10	20.06
		1	74	20.07	20.09	20.06
		36	0	19.13	19.11	19.23
		36	20	19.09	19.12	19.27
		36	39	19.12	19.12	19.30
		75	0	19.15	19.08	19.29
	16QAM	1	0	19.20	19.05	19.26
		1	37	19.20	19.02	19.25
		1	74	19.20	19.06	19.24
		36	0	18.33	18.10	18.40
		36	20	18.29	18.13	18.34
		36	39	18.31	18.11	18.32
		75	0	18.30	18.16	18.34
	64QAM	1	0	18.26	18.19	18.38
		1	37	18.24	18.17	18.37
		1	74	18.29	18.16	18.33

		36	0	17.31	17.06	17.35
		36	20	17.31	17.11	17.31
		36	39	17.27	17.09	17.29
		75	0	17.28	17.11	17.32
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel
				39750	40620	41490
20MHz	QPSK	1	0	20.07	20.10	20.05
		1	50	20.07	20.12	20.10
		1	99	20.04	20.10	20.10
		50	0	19.19	19.18	19.13
		50	25	19.21	19.15	19.16
		50	50	19.26	19.17	19.19
		100	0	19.25	19.15	19.24
	16QAM	1	0	19.22	19.10	19.24
		1	50	19.19	19.13	19.29
		1	99	19.20	19.09	19.24
		50	0	18.38	18.16	18.44
		50	25	18.44	18.15	18.43
		50	50	18.46	18.19	18.42
		100	0	18.44	18.21	18.40
	64QAM	1	0	18.48	18.23	18.36
		1	50	18.51	18.22	18.31
		1	99	18.52	18.19	18.27
		50	0	17.43	17.11	17.19
		50	25	17.48	17.07	17.21
		50	50	17.49	17.08	17.22
		100	0	17.54	17.06	17.24

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Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel
				20775	21100	21425
5MHz	QPSK	1	0	19.35	19.35	19.49
		1	13	19.48	19.35	19.38
		1	24	19.50	19.48	19.43
		12	0	18.54	18.22	18.31
		12	6	18.34	18.32	18.45
		12	13	18.52	18.30	18.37
		25	0	18.26	18.45	18.32
	16QAM	1	0	17.87	18.13	18.20
		1	13	18.13	17.97	17.93
		1	24	17.92	18.12	18.07
		12	0	17.36	17.31	17.47
		12	6	17.47	17.74	17.62
		12	13	17.68	17.62	17.62
		25	0	17.31	17.31	17.68
	64QAM	1	0	17.81	17.72	17.54
		1	13	17.81	17.54	17.82
		1	24	17.81	17.81	17.64
		12	0	16.65	16.66	16.48
		12	6	16.54	16.68	16.38
		12	13	16.63	16.59	16.46
		25	0	16.66	16.66	16.35
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel
				20800	21100	21400
10MHz	QPSK	1	0	19.56	19.43	19.30
		1	13	19.31	19.43	19.47
		1	24	19.58	19.60	19.43
		12	0	18.44	18.29	18.40

		12	6	18.40	18.12	18.38
		12	13	18.10	18.28	18.29
		25	0	18.12	18.35	18.29
	16QAM	1	0	17.82	18.20	17.96
		1	13	18.14	17.81	18.17
		1	24	17.81	17.76	18.02
		12	0	17.47	17.03	17.03
		12	6	17.10	17.50	17.29
		12	13	17.09	17.09	17.47
		25	0	17.33	17.26	17.41
	64QAM	1	0	17.79	17.65	17.59
		1	13	17.59	17.63	17.80
		1	24	17.52	17.64	17.59
		12	0	16.56	16.25	16.56
		12	6	16.49	16.56	16.50
		12	13	16.53	16.65	16.28
		25	0	16.58	16.38	16.56

Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel
				20825	21100	21375
15MHz	QPSK	1	0	19.49	19.47	19.56
		1	13	19.60	19.49	19.56
		1	24	19.49	19.34	19.42
		12	0	18.33	18.24	18.35
		12	6	18.38	18.22	18.35
		12	13	18.28	18.30	18.34
		25	0	18.12	18.23	18.08
	16QAM	1	0	18.02	17.86	17.90
		1	13	18.02	18.20	18.08
		1	24	17.82	17.96	17.86
		12	0	17.47	17.05	16.95
		12	6	17.26	17.47	17.47
		12	13	17.10	17.47	17.04
		25	0	17.15	17.09	16.95
	64QAM	1	0	17.65	17.72	17.73
		1	13	17.81	17.80	17.67
		1	24	17.59	17.64	17.80
		12	0	16.38	16.38	16.56
		12	6	16.65	16.52	16.56
		12	13	16.65	16.58	16.25
		25	0	16.36	16.61	16.38
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel
				20850	21100	21350
20MHz	QPSK	1	0	19.40	19.32	19.48
		1	50	19.72	19.71	19.75
		1	99	19.48	19.49	19.48
		50	0	18.50	18.33	18.39
		50	25	18.27	18.27	18.37
		50	50	18.20	18.30	18.36
		100	0	18.32	18.44	18.22

	16QAM	1	0	18.00	18.13	17.87
		1	50	17.85	18.00	18.31
		1	99	18.20	18.18	17.85
		50	0	17.71	17.62	17.25
		50	25	17.54	17.74	17.36
		50	50	17.68	17.47	17.19
		100	0	17.47	17.68	17.31
	64QAM	1	0	17.60	17.54	17.66
		1	50	17.95	17.93	17.94
		1	99	17.82	17.80	17.80
		50	0	16.63	16.46	16.48
		50	25	16.60	16.68	16.35
		50	50	16.54	16.75	16.63
		100	0	16.65	16.60	16.60

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Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel
				39675	40620	41565
5MHz	QPSK	1	0	21.92	22.05	22.07
		1	13	21.96	22.05	22.08
		1	24	21.91	22.01	22.04
		12	0	21.16	21.14	21.17
		12	6	21.20	21.14	21.16
		12	13	21.20	21.14	21.18
		25	0	21.23	21.19	21.13
	16QAM	1	0	21.28	21.21	21.09
		1	13	21.31	21.22	21.07
		1	24	21.34	21.24	21.10
		12	0	20.54	20.48	20.33
		12	6	20.48	20.45	20.28
		12	13	20.49	20.45	20.29
		25	0	20.45	20.48	20.25
	64QAM	1	0	20.44	20.49	20.30
		1	13	20.46	20.51	20.33
		1	24	20.42	20.48	20.35
		12	0	19.38	19.45	19.30
		12	6	19.36	19.48	19.29
		12	13	19.39	19.46	19.29
		25	0	19.35	19.50	19.30
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel
				39700	40620	41540
10MHz	QPSK	1	0	22.00	22.02	22.04
		1	25	22.00	22.06	22.06
		1	49	21.98	22.01	22.05
		25	0	21.17	21.15	21.28
		25	12	21.19	21.15	21.30
		25	25	21.16	21.17	21.34
		50	0	21.12	21.14	21.31

	16QAM	1	0	21.14	21.11	21.35
		1	25	21.13	21.08	21.40
		1	49	21.17	21.07	21.39
		25	0	20.42	20.26	20.59
		25	12	20.41	20.22	20.65
		25	25	20.43	20.20	20.65
		50	0	20.45	20.17	20.65
	64QAM	1	0	20.49	20.17	20.63
		1	25	20.53	20.14	20.63
		1	49	20.53	20.09	20.65
		25	0	19.48	19.08	19.68
		25	12	19.50	19.06	19.70
		25	25	19.53	19.10	19.70
		50	0	19.53	19.07	19.69
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel
				39725	40620	41515
15MHz	QPSK	1	0	22.03	22.05	22.02
		1	37	22.04	22.07	22.04
		1	74	22.02	22.05	22.00
		36	0	21.24	21.07	21.12
		36	20	21.23	21.07	21.16
		36	39	21.26	21.05	21.16
		75	0	21.26	21.08	21.14
	16QAM	1	0	21.25	21.08	21.11
		1	37	21.20	21.08	21.15
		1	74	21.23	21.12	21.16
		36	0	20.37	20.24	20.37
		36	20	20.34	20.24	20.42
		36	39	20.37	20.26	20.44
		75	0	20.36	20.31	20.48
	64QAM	1	0	20.37	20.28	20.45
		1	37	20.35	20.28	20.50
		1	74	20.33	20.33	20.45

		36	0	19.30	19.33	19.46
		36	20	19.34	19.33	19.51
		36	39	19.33	19.33	19.52
		75	0	19.36	19.29	19.55
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel
				39750	40620	41490
20MHz	QPSK	1	0	22.03	22.06	22.00
		1	50	22.05	22.09	22.05
		1	99	22.01	22.05	22.04
		50	0	21.11	21.15	21.28
		50	25	21.11	21.10	21.30
		50	50	21.14	21.10	21.32
		100	0	21.13	21.12	21.31
	16QAM	1	0	21.16	21.13	21.29
		1	50	21.17	21.14	21.25
		1	99	21.14	21.11	21.22
		50	0	20.17	20.13	20.28
		50	25	20.19	20.14	20.22
		50	50	20.16	20.14	20.19
		100	0	20.14	20.11	20.16
	64QAM	1	0	20.17	20.13	20.11
		1	50	20.19	20.08	20.11
		1	99	20.24	20.09	20.10
		50	0	19.14	19.03	19.09
		50	25	19.14	19.06	19.06
		50	50	19.18	19.06	19.09
		100	0	19.13	19.10	19.08

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Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel
				20775	21100	21425
5MHz	QPSK	1	0	20.07	19.97	19.83
		1	13	19.89	20.04	20.00
		1	24	19.89	19.91	20.04
		12	0	18.80	18.78	18.73
		12	6	18.78	18.90	18.91
		12	13	18.60	18.73	18.64
		25	0	18.71	18.76	18.75
	16QAM	1	0	18.51	18.67	18.28
		1	13	18.51	18.67	18.65
		1	24	18.67	18.27	18.47
		12	0	17.90	17.78	18.12
		12	6	18.14	17.80	17.79
		12	13	18.10	17.57	18.12
		25	0	18.10	18.10	18.08
	64QAM	1	0	18.05	17.96	18.13
		1	13	18.13	18.09	18.05
		1	24	18.14	18.03	18.14
		12	0	16.78	16.90	17.11
		12	6	16.97	16.99	17.02
		12	13	17.08	16.78	17.02
		25	0	17.02	17.02	16.99
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel
				20800	21100	21400
10MHz	QPSK	1	0	19.83	19.87	19.99
		1	13	19.80	20.03	20.03
		1	24	19.85	19.86	19.91
		12	0	18.78	18.50	18.75
		12	6	18.68	18.80	18.50

		12	13	18.78	18.61	18.54
		25	0	18.68	18.74	18.77
	16QAM	1	0	18.39	18.36	18.44
		1	13	18.54	18.44	18.37
		1	24	18.37	18.56	18.54
		12	0	17.37	17.36	17.80
		12	6	17.91	17.37	17.63
		12	13	17.37	17.84	17.58
		25	0	17.89	17.36	17.57
	64QAM	1	0	18.15	18.07	17.96
		1	13	17.93	18.04	18.13
		1	24	17.90	17.96	18.04
		12	0	16.92	16.80	16.89
		12	6	16.68	16.79	16.78
		12	13	16.66	16.66	16.80
		25	0	16.89	17.01	16.89

Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel
				20825	21100	21375
15MHz	QPSK	1	0	20.06	19.99	19.87
		1	13	20.06	19.91	20.04
		1	24	19.87	19.87	19.83
		12	0	18.61	18.84	18.54
		12	6	18.70	18.65	18.80
		12	13	18.81	18.65	18.65
		25	0	18.53	18.68	18.66
	16QAM	1	0	18.16	18.17	18.36
		1	13	18.56	18.31	18.37
		1	24	18.44	18.50	18.16
		12	0	17.57	17.36	17.59
		12	6	17.59	17.53	17.87
		12	13	17.83	17.36	17.89
		25	0	17.92	17.36	17.63
	64QAM	1	0	18.09	18.04	18.15
		1	13	17.95	17.90	18.02
		1	24	17.95	18.08	17.95
		12	0	16.98	16.98	16.80
		12	6	16.73	16.80	16.79
		12	13	16.89	16.80	16.70
		25	0	16.98	16.66	16.80
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel
				20850	21100	21350
20MHz	QPSK	1	0	19.88	19.80	19.83
		1	50	20.19	20.18	20.19
		1	99	19.91	19.84	20.08
		50	0	18.94	18.87	18.64
		50	25	18.75	18.80	18.90
		50	50	18.76	18.84	18.76
		100	0	18.63	18.63	18.88

	16QAM	1	0	18.61	18.27	18.40
		1	50	18.40	18.65	18.42
		1	99	18.67	18.54	18.61
		50	0	17.80	18.20	17.88
		50	25	17.71	17.58	18.05
		50	50	17.90	17.80	17.78
		100	0	17.88	17.88	18.02
	64QAM	1	0	18.16	18.14	18.05
		1	50	18.34	18.34	18.30
		1	99	18.14	18.18	18.16
		50	0	16.99	16.87	16.94
		50	25	16.98	16.89	16.99
		50	50	17.11	16.90	17.02
		100	0	16.78	17.11	17.10

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Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel
				37775	38000	38225
5MHz	QPSK	1	0	21.98	21.75	21.91
		1	13	21.72	21.72	21.96
		1	24	21.74	21.80	21.69
		12	0	20.61	20.57	20.65
		12	6	20.74	20.67	20.65
		12	13	20.53	20.67	20.56
		25	0	20.57	20.67	20.87
	16QAM	1	0	20.50	20.50	20.67
		1	13	20.25	20.29	20.29
		1	24	20.67	20.74	20.29
		12	0	19.76	19.73	19.93
		12	6	19.67	20.10	19.60
		12	13	19.55	19.64	19.89
		25	0	20.22	19.73	19.60
	64QAM	1	0	19.93	19.85	19.93
		1	13	19.78	19.93	19.82
		1	24	19.93	19.92	19.78
		12	0	18.69	18.79	18.72
		12	6	18.69	18.70	18.51
		12	13	18.76	18.80	18.81
		25	0	18.64	18.64	18.75
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel
				37800	38000	38200
10MHz	QPSK	1	0	21.92	21.74	21.85
		1	13	21.71	21.71	21.71
		1	24	21.71	21.71	21.90
		12	0	20.63	20.74	20.77
		12	6	20.59	20.48	20.47
		12	13	20.67	20.79	20.77
		25	0	20.55	20.63	20.47

	16QAM	1	0	20.15	20.14	20.50
		1	13	20.15	20.56	20.11
		1	24	20.14	20.29	20.50
		12	0	19.68	19.60	20.01
		12	6	19.85	19.70	19.88
		12	13	19.68	19.58	19.68
		25	0	19.42	19.72	19.73
	64QAM	1	0	19.67	19.77	19.68
		1	13	19.92	19.88	19.68
		1	24	19.84	19.77	19.84
		12	0	18.55	18.43	18.75
		12	6	18.54	18.70	18.54
		12	13	18.54	18.41	18.48
		25	0	18.69	18.70	18.59

Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel
				37825	38000	38175
15MHz	QPSK	1	0	21.93	21.97	21.72
		1	13	21.75	21.78	21.80
		1	24	21.90	21.68	21.96
		12	0	20.67	20.67	20.66
		12	6	20.57	20.84	20.56
		12	13	20.47	20.74	20.74
		25	0	20.57	20.55	20.74
	16QAM	1	0	20.40	20.39	20.11
		1	13	20.34	20.27	20.21
		1	24	20.41	20.14	20.18
		12	0	19.58	19.89	19.88
		12	6	19.70	19.89	19.34
		12	13	20.01	19.66	19.53
		25	0	19.27	19.47	19.55
	64QAM	1	0	19.78	19.67	19.84
		1	13	19.84	19.85	19.77
		1	24	19.75	19.84	19.91
		12	0	18.55	18.43	18.65
		12	6	18.54	18.61	18.66
		12	13	18.70	18.66	18.43
		25	0	18.59	18.66	18.70
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel
				37850	38000	38150
20MHz	QPSK	1	0	21.80	21.96	21.91
		1	50	22.08	22.12	22.17
		1	99	21.96	21.72	21.78
		50	0	20.67	20.76	20.89
		50	25	20.83	20.61	20.76
		50	50	20.80	20.65	20.69
		100	0	20.66	20.67	20.76
	16QAM	1	0	20.26	20.51	20.37

		1	50	20.65	20.43	20.65
		1	99	20.51	20.54	20.17
		50	0	19.79	19.89	19.92
		50	25	19.57	19.78	19.81
		50	50	20.10	19.73	19.91
		100	0	20.14	19.87	19.55
	64QAM	1	0	19.73	19.89	19.84
		1	50	20.05	20.07	20.05
		1	99	19.78	19.79	19.78
		50	0	18.51	18.63	18.82
		50	25	18.80	18.51	18.80
		50	50	18.64	18.64	18.58
		100	0	18.85	18.58	18.64

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Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel
				39675	40620	41565
5MHz	QPSK	1	0	22.24	22.31	22.32
		1	13	22.26	22.35	22.35
		1	24	22.23	22.32	22.35
		12	0	21.48	21.45	21.47
		12	6	21.47	21.45	21.48
		12	13	21.45	21.49	21.51
		25	0	21.40	21.46	21.52
	16QAM	1	0	21.37	21.43	21.49
		1	13	21.32	21.42	21.49
		1	24	21.30	21.42	21.49
		12	0	20.56	20.51	20.68
		12	6	20.54	20.50	20.69
		12	13	20.57	20.55	20.65
		25	0	20.58	20.60	20.69
	64QAM	1	0	20.62	20.59	20.70
		1	13	20.58	20.60	20.70
		1	24	20.60	20.62	20.70
		12	0	19.51	19.53	19.66
		12	6	19.54	19.56	19.63
		12	13	19.52	19.52	19.62
		25	0	19.48	19.49	19.64
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel
				39700	40620	41540
10MHz	QPSK	1	0	22.27	22.31	22.31
		1	25	22.29	22.34	22.35
		1	49	22.25	22.30	22.31
		25	0	21.49	21.43	21.36
		25	12	21.49	21.47	21.39
		25	25	21.47	21.48	21.44
		50	0	21.42	21.43	21.39

	16QAM	1	0	21.42	21.47	21.37
		1	25	21.42	21.42	21.41
		1	49	21.46	21.46	21.36
		25	0	20.51	20.63	20.61
		25	12	20.50	20.58	20.59
		25	25	20.52	20.56	20.56
		50	0	20.51	20.55	20.60
	64QAM	1	0	20.48	20.52	20.58
		1	25	20.46	20.55	20.56
		1	49	20.50	20.57	20.53
		25	0	19.51	19.51	19.47
		25	12	19.51	19.50	19.44
		25	25	19.53	19.49	19.40
		50	0	19.49	19.48	19.43
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel
				39725	40620	41515
15MHz	QPSK	1	0	22.28	22.29	22.30
		1	37	22.30	22.32	22.31
		1	74	22.27	22.32	22.30
		36	0	21.48	21.53	21.33
		36	20	21.45	21.49	21.29
		36	39	21.45	21.48	21.24
		75	0	21.43	21.47	21.21
	16QAM	1	0	21.46	21.45	21.22
		1	37	21.47	21.48	21.21
		1	74	21.47	21.44	21.22
		36	0	20.72	20.58	20.39
		36	20	20.77	20.60	20.33
		36	39	20.82	20.60	20.28
		75	0	20.79	20.57	20.25
	64QAM	1	0	20.79	20.57	20.23
		1	37	20.77	20.54	20.24
		1	74	20.79	20.52	20.22

		36	0	19.72	19.48	19.21
		36	20	19.69	19.43	19.25
		36	39	19.65	19.39	19.22
		75	0	19.63	19.43	19.18
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel
				39750	40620	41490
20MHz	QPSK	1	0	22.31	22.32	22.34
		1	50	22.33	22.36	22.36
		1	99	22.32	22.35	22.32
		50	0	21.52	21.50	21.46
		50	25	21.49	21.45	21.46
		50	50	21.45	21.46	21.42
		100	0	21.44	21.51	21.43
	16QAM	1	0	21.49	21.49	21.42
		1	50	21.46	21.51	21.47
		1	99	21.42	21.47	21.48
		50	0	20.66	20.54	20.51
		50	25	20.66	20.60	20.47
		50	50	20.64	20.62	20.49
		100	0	20.64	20.66	20.48
	64QAM	1	0	20.64	20.69	20.51
		1	50	20.60	20.69	20.46
		1	99	20.57	20.66	20.45
		50	0	19.53	19.66	19.43
		50	25	19.53	19.63	19.45
		50	50	19.57	19.63	19.49
		100	0	19.56	19.64	19.52

Synchronous transmission power (ANT1)

State6/State4

Band: GSM850	Burst Average Power (dBm)			Frame Average Power (dBm)		
Channel	128	190	251	128	190	251
GSM (CS)	29.21	29.14	29.14	20.21	20.14	20.14
GPRS/EDGE (GMSK, 1 Tx slot)	29.23	29.11	29.19	20.23	20.11	20.19
GPRS/EDGE (GMSK, 2 Tx slots)	26.84	26.77	26.78	20.84	20.77	20.78
GPRS/EDGE (GMSK, 3 Tx slots)	24.82	24.73	24.78	20.56	20.47	20.52
GPRS/EDGE (GMSK, 4 Tx slots)	23.58	23.63	23.62	20.58	20.63	20.62
EDGE (8PSK, 1 Tx slot)	23.73	23.77	23.67	14.73	14.77	14.67
EDGE (8PSK, 2 Tx slots)	21.55	21.62	21.39	15.55	15.62	15.39
EDGE (8PSK, 3 Tx slots)	19.23	19.29	19.20	14.97	15.03	14.94
EDGE (8PSK, 4 Tx slots)	18.46	18.47	18.41	15.46	15.47	15.41

Band: DCS1900	Burst Average Power (dBm)			Frame Average Power (dBm)		
Channel	513	661	810	513	661	810
GSM (CS)	23.08	22.86	23.06	14.08	13.86	14.06
GPRS/EDGE (GMSK, 1 Tx slot)	23.10	22.88	23.05	14.10	13.88	14.05
GPRS/EDGE (GMSK, 2 Tx slots)	20.47	20.42	20.41	14.47	14.42	14.41
GPRS/EDGE (GMSK, 3 Tx slots)	18.38	18.40	18.38	14.12	14.14	14.12
GPRS/EDGE (GMSK, 4 Tx slots)	17.39	17.37	17.45	14.39	14.37	14.45
EDGE (8PSK, 1 Tx slot)	19.50	19.52	19.76	10.50	10.52	10.76
EDGE (8PSK, 2 Tx slots)	17.56	17.50	17.86	11.56	11.50	11.86
EDGE (8PSK, 3 Tx slots)	15.50	15.39	15.89	11.24	11.13	11.63
EDGE (8PSK, 4 Tx slots)	14.77	14.74	15.15	11.77	11.74	12.15

UMTS Band V		Conducted Power (dBm)		
		4133	4175	4232
WCDMA	12.2kbps RMC	19.69	19.70	19.73
	64kbps RMC	19.62	19.65	19.68
	144kbps RMC	19.64	19.58	19.73
	384kbps RMC	19.68	19.69	19.73
HSDPA	Subtest 1	18.64	18.65	18.72
	Subtest 2	17.91	17.95	17.96
	Subtest 3	18.00	17.82	17.99
	Subtest 4	17.79	17.93	17.83
HSUPA	Subtest 1	17.75	17.31	17.33
	Subtest 2	17.42	17.40	17.49
	Subtest 3	18.32	18.32	18.42
	Subtest 4	16.87	16.94	16.99
	Subtest 5	18.28	18.37	18.51

LTE Band 5

Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel
				20407	20525	20643
1.4MHz	QPSK	1	0	19.47	19.36	19.58
		1	13	19.31	19.43	19.48
		1	24	19.38	19.47	19.31
		12	0	18.43	18.20	18.31
		12	6	18.46	18.38	18.29
		12	13	18.19	18.29	18.15
		25	0	18.46	18.31	18.37
	16QAM	1	0	18.33	17.98	18.06
		1	13	18.10	18.09	18.18
		1	24	18.04	17.81	18.33
		12	0	17.61	17.48	17.17
		12	6	17.35	17.58	17.29
		12	13	17.29	17.25	17.25
		25	0	17.35	17.29	17.48
	64QAM	1	0	17.40	17.30	17.24
		1	13	17.19	17.39	17.19
		1	24	17.42	17.19	17.39
		12	0	16.18	16.30	16.33
		12	6	16.05	16.30	16.30
		12	13	16.05	16.05	16.11
		25	0	16.33	16.31	16.26
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel
				20415	20525	20635
3MHz	QPSK	1	0	19.50	19.56	19.55
		1	13	19.43	19.47	19.54
		1	24	19.48	19.33	19.55
		12	0	18.43	18.31	18.22
		12	6	18.19	18.19	18.31
		12	13	18.38	18.38	18.31
		25	0	18.48	18.29	18.22

	16QAM	1	0	17.90	17.92	18.01
		1	13	18.32	18.08	18.26
		1	24	18.32	18.08	18.06
		12	0	17.39	17.17	17.71
		12	6	17.12	17.30	17.29
		12	13	17.45	17.48	17.81
		25	0	17.42	17.48	17.80
	64QAM	1	0	17.24	17.40	17.39
		1	13	17.19	17.19	17.24
		1	24	17.31	17.35	17.39
		12	0	16.35	16.39	16.35
		12	6	16.29	16.19	16.31
		12	13	16.31	16.17	16.11
		25	0	16.15	16.30	16.31

Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel
				20425	20525	20625
5MHz	QPSK	1	0	19.38	19.42	19.53
		1	13	19.53	19.49	19.50
		1	24	19.35	19.38	19.50
		12	0	18.09	18.20	18.38
		12	6	18.34	18.20	18.41
		12	13	18.44	18.09	18.41
		25	0	18.09	18.28	18.36
	16QAM	1	0	17.79	17.90	17.70
		1	13	18.09	17.81	18.21
		1	24	17.92	18.13	17.81
		12	0	16.94	17.09	16.91
		12	6	17.28	17.27	17.34
		12	13	17.12	17.19	17.60
		25	0	17.30	17.24	17.27
	64QAM	1	0	17.23	17.35	17.38
		1	13	17.59	17.62	17.61
		1	24	17.19	17.24	17.39
		12	0	16.28	16.29	16.11
		12	6	16.31	16.15	16.15
		12	13	16.19	16.28	16.19
		25	0	16.26	16.31	16.18
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel
				20450	20525	20600
10MHz	QPSK	1	0	19.43	19.58	19.43
		1	13	19.71	19.72	19.70
		1	24	19.43	19.36	19.57
		12	0	18.31	18.43	18.29
		12	6	18.31	18.26	18.29
		12	13	18.38	18.38	18.29
		25	0	18.48	18.48	18.38
	16QAM	1	0	18.26	17.98	18.02

		1	13	18.24	18.04	18.20
		1	24	18.08	18.09	18.32
		12	0	17.51	17.68	17.35
		12	6	17.15	17.48	17.55
		12	13	17.41	17.51	17.39
		25	0	17.45	17.29	17.40
	64QAM	1	0	17.32	17.39	17.41
		1	13	17.30	17.22	17.32
		1	24	17.39	17.18	17.29
		12	0	16.08	16.25	16.08
		12	6	16.09	16.05	16.01
		12	13	16.18	16.29	16.09
		25	0	15.95	16.23	16.05

LTE Band 7

Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel
				20775	21100	21425
5MHz	QPSK	1	0	14.38	14.40	14.44
		1	13	14.60	14.44	14.40
		1	24	14.43	14.61	14.43
		12	0	13.39	13.61	13.43
		12	6	13.49	13.56	13.32
		12	13	13.32	13.25	13.49
		25	0	13.49	13.41	13.32
	16QAM	1	0	13.23	12.94	13.11
		1	13	13.18	13.30	12.98
		1	24	13.20	13.06	13.09
		12	0	12.79	12.30	12.54
		12	6	12.65	12.58	12.45
		12	13	12.55	12.54	12.53
		25	0	12.38	12.66	12.79
	64QAM	1	0	12.07	12.12	12.30
		1	13	12.34	12.33	12.35
		1	24	12.18	12.12	12.29
		12	0	11.21	11.05	11.15
		12	6	11.21	11.26	11.14
		12	13	11.06	11.15	11.21
		25	0	11.14	11.07	10.87
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel
				20800	21100	21400
10MHz	QPSK	1	0	14.58	14.48	14.59
		1	13	14.49	14.58	14.47
		1	24	14.45	14.48	14.42
		12	0	13.34	13.22	13.27
		12	6	13.17	13.26	13.46
		12	13	13.27	13.15	13.26
		25	0	13.38	13.29	13.26

	16QAM	1	0	13.01	12.99	12.87
		1	13	13.22	13.00	13.22
		1	24	12.99	12.95	12.83
		12	0	12.44	12.48	12.33
		12	6	12.15	12.15	12.45
		12	13	12.39	12.67	12.39
		25	0	12.42	12.33	12.37
	64QAM	1	0	12.32	12.28	12.09
		1	13	12.09	12.34	12.23
		1	24	12.15	12.11	12.21
		12	0	10.88	11.05	11.11
		12	6	11.11	10.96	11.03
		12	13	10.96	11.05	11.04
		25	0	11.09	11.05	10.83

Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel
				20825	21100	21375
15MHz	QPSK	1	0	14.39	14.64	14.39
		1	13	14.48	14.59	14.43
		1	24	14.60	14.48	14.52
		12	0	13.22	13.29	13.20
		12	6	13.26	13.39	13.46
		12	13	13.26	13.21	13.33
		25	0	13.22	13.34	13.15
	16QAM	1	0	13.12	13.08	13.29
		1	13	13.09	13.00	13.12
		1	24	13.07	13.07	12.95
		12	0	12.44	12.44	12.32
		12	6	12.42	12.58	12.40
		12	13	12.23	12.34	12.58
		25	0	12.48	12.39	12.34
	64QAM	1	0	12.33	12.17	12.21
		1	13	12.06	12.12	12.33
		1	24	12.15	12.35	12.11
		12	0	11.05	10.93	11.04
		12	6	11.22	10.77	10.96
		12	13	10.87	11.05	10.96
		25	0	11.09	11.11	11.03
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel
				20850	21100	21350
20MHz	QPSK	1	0	14.65	14.61	14.49
		1	50	14.75	14.80	14.79
		1	99	14.53	14.49	14.48
		50	0	13.61	13.37	13.48
		50	25	13.48	13.44	13.32
		50	50	13.32	13.27	13.32
		100	0	13.37	13.31	13.48

	16QAM	1	0	13.23	13.12	13.33
		1	50	13.18	13.08	13.20
		1	99	13.30	13.33	13.23
		50	0	12.54	12.88	12.69
		50	25	12.49	12.54	12.88
		50	50	12.63	12.65	12.49
		100	0	12.38	12.53	12.79
	64QAM	1	0	12.16	12.35	12.34
		1	50	12.46	12.46	12.47
		1	99	12.33	12.12	12.36
		50	0	11.00	11.19	11.26
		50	25	11.06	11.19	11.19
		50	50	11.06	11.26	11.08
		100	0	11.06	11.14	11.14

LTE Band 38

Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel
				37775	38000	38225
5MHz	QPSK	1	0	17.65	17.42	17.51
		1	13	17.64	17.64	17.51
		1	24	17.41	17.65	17.44
		12	0	16.48	16.62	16.48
		12	6	16.48	16.42	16.37
		12	13	16.25	16.42	16.46
		25	0	16.62	16.23	16.48
	16QAM	1	0	16.00	16.23	16.23
		1	13	16.09	16.12	15.98
		1	24	16.43	16.09	15.89
		12	0	15.37	15.30	15.30
		12	6	15.42	15.92	15.91
		12	13	15.37	15.59	15.29
		25	0	15.61	15.29	15.30
	64QAM	1	0	15.49	15.40	15.43
		1	13	15.35	15.29	15.29
		1	24	15.36	15.31	15.43
		12	0	14.12	14.09	14.33
		12	6	14.36	14.32	14.23
		12	13	14.24	14.30	14.33
		25	0	14.40	14.24	14.30
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel
				37800	38000	38200
10MHz	QPSK	1	0	17.63	17.64	17.53
		1	13	17.64	17.63	17.60
		1	24	17.38	17.54	17.60
		12	0	16.15	16.27	16.38
		12	6	16.30	16.36	16.38
		12	13	16.38	16.32	16.29
		25	0	16.29	16.41	16.52

		1	0	16.32	15.98	15.89
		1	13	15.88	15.81	15.94
		1	24	16.07	15.93	16.32
		12	0	15.71	15.17	15.51
		12	6	15.17	15.37	15.38
		12	13	15.51	15.21	15.20
		25	0	15.09	15.13	15.51
	64QAM	1	0	15.32	15.37	15.27
		1	13	15.24	15.46	15.50
		1	24	15.48	15.48	15.35
		12	0	14.21	14.13	14.11
		12	6	14.23	14.16	14.22
		12	13	14.06	14.23	14.02
		25	0	14.23	14.02	14.32

Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel
				37825	38000	38175
15MHz	QPSK	1	0	17.58	17.38	17.63
		1	13	17.47	17.41	17.64
		1	24	17.50	17.63	17.55
		12	0	16.34	16.36	16.18
		12	6	16.38	16.52	16.28
		12	13	16.44	16.32	16.11
		25	0	16.24	16.13	16.24
	16QAM	1	0	16.04	16.20	15.81
		1	13	16.32	16.10	16.01
		1	24	16.07	15.94	15.82
		12	0	15.21	15.46	15.09
		12	6	15.51	15.09	15.17
		12	13	15.03	15.71	15.21
		25	0	15.16	15.16	15.09
	64QAM	1	0	15.32	15.39	15.26
		1	13	15.36	15.41	15.51
		1	24	15.28	15.32	15.46
		12	0	14.20	14.30	14.20
		12	6	14.02	14.23	14.22
		12	13	14.13	14.04	14.10
		25	0	13.99	13.99	14.16
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel
				37850	38000	38150
20MHz	QPSK	1	0	17.39	17.42	17.64
		1	50	17.77	17.79	17.77
		1	99	17.57	17.42	17.64
		50	0	16.42	16.39	16.42
		50	25	16.52	16.54	16.39
		50	50	16.21	16.62	16.42
		100	0	16.54	16.23	16.23
	16QAM	1	0	16.18	16.09	16.23

		1	50	16.12	16.23	15.93
		1	99	16.12	16.20	16.26
		50	0	15.29	15.38	15.67
		50	25	15.38	15.91	15.34
		50	50	15.34	15.51	15.30
		100	0	15.80	15.37	15.67
	64QAM	1	0	15.29	15.27	15.31
		1	50	15.68	15.67	15.65
		1	99	15.33	15.37	15.27
		50	0	14.36	14.40	14.31
		50	25	14.40	14.31	14.21
		50	50	14.24	14.30	14.39
		100	0	14.40	14.33	14.23

LTE Band 41

Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel
				39675	40620	41565
5MHz	QPSK	1	0	17.30	17.27	17.24
		1	13	17.35	17.29	17.28
		1	24	17.33	17.25	17.24
		12	0	16.33	16.26	16.40
		12	6	16.32	16.28	16.35
		12	13	16.35	16.24	16.31
		25	0	16.36	16.23	16.29
	16QAM	1	0	16.36	16.20	16.28
		1	13	16.40	16.16	16.27
		1	24	16.37	16.19	16.27
		12	0	15.50	15.22	15.45
		12	6	15.56	15.19	15.43
		12	13	15.60	15.21	15.46
		25	0	15.60	15.21	15.49
	64QAM	1	0	15.64	15.24	15.52
		1	13	15.60	15.21	15.56
		1	24	15.57	15.21	15.56
		12	0	14.59	14.18	14.47
		12	6	14.54	14.18	14.42
		12	13	14.56	14.23	14.47
		25	0	14.53	14.22	14.47
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel
				39700	40620	41540
10MHz	QPSK	1	0	17.30	17.27	17.25
		1	25	17.33	17.29	17.25
		1	49	17.33	17.28	17.23
		25	0	16.37	16.38	16.47
		25	12	16.41	16.41	16.42
		25	25	16.46	16.40	16.44
		50	0	16.48	16.40	16.43

	16QAM	1	0	16.47	16.43	16.45
		1	25	16.47	16.46	16.47
		1	49	16.51	16.45	16.50
		25	0	15.51	15.65	15.71
		25	12	15.45	15.68	15.71
		25	25	15.43	15.66	15.67
		50	0	15.39	15.66	15.72
	64QAM	1	0	15.36	15.69	15.72
		1	25	15.38	15.64	15.72
		1	49	15.36	15.69	15.75
		25	0	14.31	14.64	14.74
		25	12	14.28	14.63	14.76
		25	25	14.30	14.58	14.74
		50	0	14.28	14.54	14.75
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel
				39725	40620	41515
15MHz	QPSK	1	0	17.30	17.31	17.24
		1	37	17.31	17.33	17.24
		1	74	17.26	17.30	17.21
		36	0	16.31	16.47	16.23
		36	20	16.26	16.50	16.28
		36	39	16.31	16.46	16.25
		75	0	16.31	16.41	16.27
	16QAM	1	0	16.28	16.37	16.32
		1	37	16.31	16.36	16.33
		1	74	16.34	16.38	16.33
		36	0	15.35	15.45	15.37
		36	20	15.30	15.43	15.42
		36	39	15.30	15.48	15.42
		75	0	15.34	15.45	15.37
	64QAM	1	0	15.34	15.43	15.38
		1	37	15.34	15.44	15.41
		1	74	15.34	15.46	15.45

		36	0	14.33	14.47	14.43
		36	20	14.34	14.44	14.47
		36	39	14.38	14.43	14.49
		75	0	14.42	14.47	14.46
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel
				39750	40620	41490
20MHz	QPSK	1	0	17.29	17.31	17.28
		1	50	17.32	17.36	17.29
		1	99	17.27	17.31	17.27
		50	0	16.47	16.31	16.31
		50	25	16.44	16.29	16.29
		50	50	16.48	16.30	16.29
		100	0	16.45	16.29	16.25
	16QAM	1	0	16.43	16.33	16.20
		1	50	16.45	16.36	16.21
		1	99	16.46	16.31	16.24
		50	0	15.67	15.34	15.43
		50	25	15.61	15.29	15.46
		50	50	15.58	15.32	15.43
		100	0	15.55	15.30	15.41
	64QAM	1	0	15.54	15.33	15.46
		1	50	15.50	15.31	15.48
		1	99	15.48	15.29	15.45
		50	0	14.38	14.31	14.38
		50	25	14.42	14.30	14.42
		50	50	14.41	14.28	14.46
		100	0	14.43	14.30	14.48

Synchronous transmission power (ANT1)

State3/State5

Band: GSM850	Burst Average Power (dBm)			Frame Average Power (dBm)		
Channel	128	190	251	128	190	251
GSM (CS)	31.74	31.62	31.72	22.74	22.62	22.72
GPRS/EDGE (GMSK, 1 Tx slot)	31.73	31.68	31.65	22.73	22.68	22.65
GPRS/EDGE (GMSK, 2 Tx slots)	29.30	29.30	29.29	23.30	23.30	23.29
GPRS/EDGE (GMSK, 3 Tx slots)	27.25	27.23	27.26	22.99	22.97	23.00
GPRS/EDGE (GMSK, 4 Tx slots)	26.11	26.07	26.13	23.11	23.07	23.13
EDGE (8PSK, 1 Tx slot)	26.29	26.32	26.12	17.29	17.32	17.12
EDGE (8PSK, 2 Tx slots)	24.04	24.11	23.92	18.04	18.11	17.92
EDGE (8PSK, 3 Tx slots)	21.72	21.83	21.63	17.46	17.57	17.37
EDGE (8PSK, 4 Tx slots)	20.97	21.02	20.87	17.97	18.02	17.87

Band: DCS1900	Burst Average Power (dBm)			Frame Average Power (dBm)		
Channel	513	661	810	513	661	810
GSM (CS)	28.59	28.36	28.53	19.59	19.36	19.53
GPRS/EDGE (GMSK, 1 Tx slot)	28.57	28.40	28.49	19.57	19.40	19.49
GPRS/EDGE (GMSK, 2 Tx slots)	25.99	25.93	25.95	19.99	19.93	19.95
GPRS/EDGE (GMSK, 3 Tx slots)	23.94	23.90	23.92	19.68	19.64	19.66
GPRS/EDGE (GMSK, 4 Tx slots)	22.91	22.87	22.96	19.91	19.87	19.96
EDGE (8PSK, 1 Tx slot)	25.02	24.94	25.27	16.02	15.94	16.27
EDGE (8PSK, 2 Tx slots)	23.07	22.99	23.34	17.07	16.99	17.34
EDGE (8PSK, 3 Tx slots)	20.92	20.82	21.34	16.66	16.56	17.08
EDGE (8PSK, 4 Tx slots)	20.33	20.28	20.65	17.33	17.28	17.65

UMTS Band V		Conducted Power (dBm)		
		4133	4175	4232
WCDMA	12.2kbps RMC	23.19	23.26	23.26
	64kbps RMC	23.12	23.21	23.21
	144kbps RMC	23.14	23.13	23.26
	384kbps RMC	23.17	23.25	23.26
HSDPA	Subtest 1	22.21	22.17	22.21
	Subtest 2	21.42	21.47	21.51
	Subtest 3	21.44	21.38	21.47
	Subtest 4	21.31	21.35	21.32
HSUPA	Subtest 1	21.30	20.80	20.85
	Subtest 2	20.86	20.90	20.94
	Subtest 3	21.84	21.82	21.89
	Subtest 4	20.39	20.38	20.51
	Subtest 5	21.83	21.83	21.92

LTE Band5

Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel
				20407	20525	20643
1.4MHz	QPSK	1	0	22.60	22.39	22.48
		1	13	22.50	22.48	22.48
		1	24	22.55	22.38	22.43
		12	0	21.28	21.37	21.54
		12	6	21.52	21.42	21.54
		12	13	21.45	21.55	21.49
		25	0	21.29	21.38	21.34
	16QAM	1	0	21.32	21.32	21.08
		1	13	21.04	21.13	21.37
		1	24	21.16	20.95	21.16
		12	0	20.37	20.37	20.41
		12	6	20.62	20.50	20.41
		12	13	20.37	20.43	20.29
		25	0	20.62	20.60	20.41
	64QAM	1	0	20.60	20.44	20.37
		1	13	20.40	20.56	20.56
		1	24	20.56	20.44	20.60
		12	0	19.49	19.31	19.48
		12	6	19.38	19.44	19.37
		12	13	19.51	19.33	19.33
		25	0	19.37	19.37	19.46
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel
				20415	20525	20635
3MHz	QPSK	1	0	22.65	22.55	22.43
		1	13	22.50	22.60	22.48
		1	24	22.39	22.55	22.53
		12	0	21.35	21.49	21.49
		12	6	21.35	21.55	21.38
		12	13	21.34	21.32	21.38
		25	0	21.36	21.37	21.42

	16QAM	1	0	21.37	21.04	21.16
		1	13	21.16	21.32	21.01
		1	24	21.16	21.37	21.32
		12	0	20.43	20.50	20.86
		12	6	20.29	20.41	20.55
		12	13	20.41	20.37	20.82
		25	0	20.82	20.34	20.34
	64QAM	1	0	20.44	20.50	20.60
		1	13	20.56	20.40	20.44
		1	24	20.32	20.38	20.47
		12	0	19.37	19.31	19.48
		12	6	19.35	19.49	19.34
		12	13	19.34	19.14	19.31
		25	0	19.24	19.49	19.44

Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel
				20425	20525	20625
5MHz	QPSK	1	0	22.47	22.56	22.37
		1	13	22.58	22.44	22.38
		1	24	22.47	22.48	22.55
		12	0	21.28	21.41	21.25
		12	6	21.44	21.41	21.25
		12	13	21.42	21.42	21.19
		25	0	21.15	21.22	21.29
	16QAM	1	0	20.90	20.93	20.93
		1	13	21.21	20.96	20.86
		1	24	21.26	20.93	20.90
		12	0	20.21	20.22	20.09
		12	6	20.13	20.16	20.18
		12	13	20.43	20.40	20.16
		25	0	20.21	20.08	20.21
	64QAM	1	0	20.44	20.58	20.44
		1	13	20.72	20.76	20.74
		1	24	20.50	20.32	20.37
		12	0	19.33	19.38	19.14
		12	6	19.48	19.31	19.31
		12	13	19.33	19.30	19.25
		25	0	19.25	19.31	19.34
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel
				20450	20525	20600
10MHz	QPSK	1	0	22.60	22.55	22.60
		1	13	22.76	22.80	22.76
		1	24	22.39	22.59	22.59
		12	0	21.29	21.55	21.35
		12	6	21.28	21.38	21.34
		12	13	21.28	21.38	21.52
		25	0	21.28	21.49	21.35
	16QAM	1	0	21.07	21.10	21.13

		1	13	21.13	20.96	21.13
		1	24	21.04	21.13	21.08
		12	0	20.43	20.63	20.86
		12	6	20.37	20.34	20.37
		12	13	20.41	20.39	20.42
		25	0	20.39	20.61	20.63
	64QAM	1	0	20.48	20.48	20.44
		1	13	20.44	20.34	20.33
		1	24	20.59	20.57	20.37
		12	0	19.36	19.26	19.21
		12	6	19.23	19.11	19.30
		12	13	19.36	19.24	19.23
		25	0	19.21	19.38	19.21

LTE Band7

Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel
				20775	21100	21425
5MHz	QPSK	1	0	17.49	17.42	17.46
		1	13	17.49	17.38	17.48
		1	24	17.34	17.59	17.48
		12	0	16.22	16.37	16.37
		12	6	16.39	16.47	16.43
		12	13	16.43	16.39	16.26
		25	0	16.22	16.37	16.36
	16QAM	1	0	15.91	16.22	16.21
		1	13	15.93	16.24	16.12
		1	24	16.22	16.20	15.97
		12	0	15.05	15.65	15.25
		12	6	15.65	15.35	15.79
		12	13	15.60	15.79	15.22
		25	0	15.65	15.68	15.05
	64QAM	1	0	15.25	15.10	15.07
		1	13	15.16	15.02	15.16
		1	24	15.16	15.02	15.05
		12	0	13.91	14.13	14.09
		12	6	14.05	13.91	13.98
		12	13	14.12	14.05	13.90
		25	0	13.91	13.98	14.17
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel
				20800	21100	21400
10MHz	QPSK	1	0	17.58	17.33	17.53
		1	13	17.47	17.48	17.47
		1	24	17.54	17.47	17.41
		12	0	16.33	16.19	16.37
		12	6	16.18	16.31	16.14
		12	13	16.31	16.12	16.31
		25	0	16.37	16.18	16.22

	16QAM	1	0	16.07	16.11	16.09
		1	13	15.82	16.07	16.03
		1	24	15.74	16.07	15.82
		12	0	15.31	15.44	15.57
		12	6	15.40	15.31	15.52
		12	13	15.57	15.03	15.39
		25	0	15.07	15.17	15.47
	64QAM	1	0	15.18	15.07	15.27
		1	13	15.23	15.01	15.21
		1	24	15.06	15.20	15.27
		12	0	13.98	13.88	14.06
		12	6	14.02	13.89	14.09
		12	13	14.07	13.95	13.83
		25	0	13.95	13.98	13.80

Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel
				20825	21100	21375
15MHz	QPSK	1	0	17.47	17.41	17.44
		1	13	17.49	17.43	17.55
		1	24	17.53	17.33	17.47
		12	0	16.22	16.24	16.27
		12	6	16.16	16.29	16.26
		12	13	16.13	16.22	16.29
		25	0	16.20	16.24	16.37
	16QAM	1	0	16.00	15.91	16.03
		1	13	15.80	16.22	16.11
		1	24	16.10	15.82	16.10
		12	0	15.17	15.52	15.44
		12	6	15.07	15.31	15.16
		12	13	15.30	15.39	15.16
		25	0	14.84	15.16	15.31
	64QAM	1	0	15.15	15.01	15.21
		1	13	15.31	15.06	15.27
		1	24	15.27	15.15	15.16
		12	0	13.80	14.02	13.99
		12	6	13.84	14.02	13.88
		12	13	14.02	14.07	13.88
		25	0	13.87	14.09	13.93
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel
				20850	21100	21350
20MHz	QPSK	1	0	17.49	17.48	17.50
		1	50	17.79	17.79	17.74
		1	99	17.38	17.41	17.41
		50	0	16.34	16.22	16.47
		50	25	16.39	16.36	16.30
		50	50	16.39	16.29	16.36
		100	0	16.45	16.43	16.36

	16QAM	1	0	16.18	16.02	16.28
		1	50	16.00	16.14	16.14
		1	99	15.91	15.93	16.20
		50	0	15.73	15.22	15.60
		50	25	15.52	15.65	15.37
		50	50	15.78	15.51	15.22
		100	0	15.28	15.35	15.73
	64QAM	1	0	15.07	15.15	15.12
		1	50	15.42	15.42	15.46
		1	99	15.08	15.28	15.22
		50	0	14.05	13.96	13.84
		50	25	13.93	14.05	13.99
		50	50	13.90	14.03	14.09
		100	0	14.12	14.15	13.98

LTE Band38

Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel
				37775	38000	38225
5MHz	QPSK	1	0	21.20	21.14	21.24
		1	13	20.99	21.20	21.20
		1	24	21.14	21.14	21.25
		12	0	19.96	20.05	20.11
		12	6	19.91	20.08	20.03
		12	13	19.91	20.04	20.11
		25	0	20.17	20.07	20.11
	16QAM	1	0	19.75	19.82	19.86
		1	13	19.74	19.58	19.44
		1	24	19.74	19.86	19.66
		12	0	19.24	18.76	19.46
		12	6	19.21	19.18	19.13
		12	13	18.98	19.24	19.13
		25	0	19.04	19.46	19.04
	64QAM	1	0	18.88	18.74	19.00
		1	13	18.75	18.80	19.00
		1	24	18.85	18.87	18.96
		12	0	17.81	17.74	17.61
		12	6	17.74	17.88	17.61
		12	13	17.61	17.89	17.89
		25	0	17.68	17.68	17.80
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel
				37800	38000	38200
10MHz	QPSK	1	0	21.14	21.17	21.12
		1	13	20.98	21.12	21.22
		1	24	20.98	21.05	20.97
		12	0	20.02	19.98	19.80
		12	6	20.02	19.86	19.80
		12	13	19.70	19.94	20.07
		25	0	19.86	19.95	19.95

	16QAM	1	0	19.63	19.59	19.75
		1	13	19.63	19.55	19.67
		1	24	19.63	19.68	19.39
		12	0	18.92	19.05	18.77
		12	6	18.92	19.25	19.12
		12	13	19.00	18.92	19.12
		25	0	19.25	18.72	18.72
	64QAM	1	0	18.74	18.77	18.89
		1	13	18.84	18.84	18.90
		1	24	18.77	18.99	18.78
		12	0	17.59	17.58	17.61
		12	6	17.64	17.48	17.71
		12	13	17.79	17.64	17.58
		25	0	17.69	17.58	17.58

Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel
				37825	38000	38175
15MHz	QPSK	1	0	21.22	21.04	21.14
		1	13	21.20	21.10	21.13
		1	24	21.05	20.98	21.13
		12	0	19.81	20.03	19.81
		12	6	19.98	19.94	20.01
		12	13	19.81	20.03	19.97
		25	0	19.95	19.93	19.93
	16QAM	1	0	19.47	19.52	19.75
		1	13	19.47	19.54	19.69
		1	24	19.64	19.64	19.39
		12	0	18.92	19.20	19.08
		12	6	19.03	18.83	19.25
		12	13	18.89	19.08	19.05
		25	0	19.03	18.64	18.92
	64QAM	1	0	18.84	18.84	18.95
		1	13	18.82	18.87	18.82
		1	24	18.79	18.84	18.74
		12	0	17.45	17.55	17.49
		12	6	17.49	17.58	17.49
		12	13	17.45	17.58	17.65
		25	0	17.78	17.64	17.58
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel
				37850	38000	38150
20MHz	QPSK	1	0	21.21	21.15	21.19
		1	50	21.38	21.37	21.36
		1	99	21.09	21.26	21.14
		50	0	20.03	20.07	20.12
		50	25	20.13	20.06	20.08
		50	50	19.94	20.12	20.11
		100	0	20.17	20.12	20.05
	16QAM	1	0	19.78	19.70	19.86

		1	50	19.65	19.44	19.86
		1	99	19.70	19.63	19.86
		50	0	19.10	19.07	19.29
		50	25	19.24	19.41	19.09
		50	50	19.13	19.10	19.10
		100	0	19.41	19.21	19.09
	64QAM	1	0	18.77	19.00	19.00
		1	50	19.11	19.12	19.13
		1	99	18.74	18.89	18.74
		50	0	17.74	17.58	17.68
		50	25	17.65	17.65	17.83
		50	50	17.60	17.71	17.71
		100	0	17.68	17.59	17.83

LTE Band41

Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel
				39675	40620	41565
5MHz	QPSK	1	0	20.06	20.04	19.96
		1	13	20.06	20.06	19.99
		1	24	20.06	20.03	19.94
		12	0	19.17	19.05	19.18
		12	6	19.13	19.10	19.14
		12	13	19.12	19.08	19.12
		25	0	19.08	19.10	19.11
	16QAM	1	0	19.04	19.10	19.09
		1	13	19.00	19.07	19.09
		1	24	19.01	19.07	19.09
		12	0	18.26	18.32	18.23
		12	6	18.30	18.30	18.24
		12	13	18.32	18.27	18.25
		25	0	18.37	18.25	18.29
	64QAM	1	0	18.40	18.26	18.26
		1	13	18.41	18.21	18.26
		1	24	18.37	18.17	18.28
		12	0	17.28	17.14	17.21
		12	6	17.29	17.10	17.18
		12	13	17.30	17.12	17.19
		25	0	17.32	17.13	17.15
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel
				39700	40620	41540
10MHz	QPSK	1	0	20.04	20.07	19.96
		1	25	20.08	20.08	20.01
		1	49	20.07	20.04	19.97
		25	0	19.30	19.24	19.08
		25	12	19.29	19.24	19.07
		25	25	19.29	19.27	19.03
		50	0	19.29	19.24	19.07

	16QAM	1	0	19.32	19.28	19.04
		1	25	19.34	19.31	19.02
		1	49	19.31	19.29	19.03
		25	0	18.43	18.33	18.12
		25	12	18.47	18.28	18.09
		25	25	18.49	18.24	18.14
		50	0	18.54	18.22	18.13
	64QAM	1	0	18.51	18.21	18.12
		1	25	18.49	18.25	18.11
		1	49	18.46	18.25	18.11
		25	0	17.39	17.19	17.10
		25	12	17.35	17.17	17.09
		25	25	17.31	17.16	17.13
		50	0	17.30	17.11	17.08
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel
				39725	40620	41515
15MHz	QPSK	1	0	20.09	20.10	20.03
		1	37	20.09	20.11	20.05
		1	74	20.07	20.11	20.02
		36	0	19.12	19.26	19.25
		36	20	19.13	19.31	19.27
		36	39	19.08	19.30	19.31
		75	0	19.09	19.34	19.29
	16QAM	1	0	19.06	19.34	19.27
		1	37	19.01	19.32	19.31
		1	74	19.04	19.34	19.32
		36	0	18.15	18.59	18.40
		36	20	18.19	18.52	18.37
		36	39	18.21	18.49	18.41
		75	0	18.18	18.50	18.41
	64QAM	1	0	18.16	18.51	18.42
		1	37	18.17	18.56	18.46
		1	74	18.15	18.59	18.47

		36	0	17.16	17.51	17.37
		36	20	17.16	17.52	17.41
		36	39	17.17	17.51	17.40
		75	0	17.20	17.47	17.42
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel
				39750	40620	41490
20MHz	QPSK	1	0	20.08	20.09	20.03
		1	50	20.11	20.12	20.06
		1	99	20.09	20.08	20.04
		50	0	19.31	19.12	19.17
		50	25	19.32	19.15	19.18
		50	50	19.30	19.11	19.21
		100	0	19.25	19.14	19.22
	16QAM	1	0	19.28	19.18	19.23
		1	50	19.26	19.20	19.23
		1	99	19.30	19.20	19.18
		50	0	18.47	18.22	18.20
		50	25	18.46	18.27	18.26
		50	50	18.50	18.30	18.31
		100	0	18.49	18.32	18.26
	64QAM	1	0	18.54	18.31	18.28
		1	50	18.53	18.33	18.30
		1	99	18.57	18.35	18.33
		50	0	17.53	17.28	17.36
		50	25	17.55	17.26	17.35
		50	50	17.55	17.31	17.31
		100	0	17.52	17.27	17.31

Synchronous transmission power (ANT 0)

State3/State5

Band: DCS1900	Burst Average Power (dBm)			Frame Average Power (dBm)		
Channel	513	661	810	513	661	810
GSM (CS)	28.84	28.66	28.87	19.84	19.66	19.87
GPRS/EDGE (GMSK, 1 Tx slot)	28.84	28.66	28.83	19.84	19.66	19.83
GPRS/EDGE (GMSK, 2 Tx slots)	26.37	26.23	26.54	20.37	20.23	20.54
GPRS/EDGE (GMSK, 3 Tx slots)	24.38	24.20	24.51	20.12	19.94	20.25
GPRS/EDGE (GMSK, 4 Tx slots)	23.30	23.10	23.45	20.30	20.10	20.45
EDGE (8PSK, 1 Tx slot)	25.42	25.23	25.64	16.42	16.23	16.64
EDGE (8PSK, 2 Tx slots)	23.49	23.29	23.65	17.49	17.29	17.65
EDGE (8PSK, 3 Tx slots)	21.22	21.22	21.54	16.96	16.96	17.28
EDGE (8PSK, 4 Tx slots)	20.66	20.52	20.85	17.66	17.52	17.85

UMTS Band V		Conducted Power (dBm)		
		4133	4175	4232
WCDMA	12.2kbps RMC	23.74	23.72	23.68
	64kbps RMC	23.67	23.67	23.63
	144kbps RMC	23.69	23.60	23.68
	384kbps RMC	23.72	23.71	23.68
HSDPA	Subtest 1	22.67	22.64	22.76
	Subtest 2	21.98	21.93	21.98
	Subtest 3	21.92	21.95	21.92
	Subtest 4	21.96	21.92	21.86
HSUPA	Subtest 1	21.75	21.28	21.36
	Subtest 2	21.43	21.45	21.46
	Subtest 3	22.37	22.34	22.40
	Subtest 4	20.93	20.91	20.99
	Subtest 5	22.33	22.39	22.47

LTE Band 5

Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel
				20407	20525	20643
1.4MHz	QPSK	1	0	22.35	22.19	22.35
		1	13	22.29	22.44	22.33
		1	24	22.30	22.21	22.29
		12	0	21.30	21.28	21.33
		12	6	21.28	21.12	21.33
		12	13	21.26	21.22	21.33
		25	0	21.16	21.11	21.42
	16QAM	1	0	21.07	20.77	21.03
		1	13	20.78	21.03	21.10
		1	24	21.03	21.03	20.82
		12	0	19.94	20.54	20.26
		12	6	20.18	20.67	20.06
		12	13	20.10	20.27	20.54
		25	0	20.10	19.94	20.50
	64QAM	1	0	20.77	20.72	20.90
		1	13	20.82	20.88	20.81
		1	24	20.91	20.93	20.93
		12	0	19.62	19.76	19.74
		12	6	19.86	19.87	19.76
		12	13	19.78	19.77	19.76
		25	0	19.79	19.64	19.65
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel
				20415	20525	20635
3MHz	QPSK	1	0	22.21	22.19	22.46
		1	13	22.33	22.29	22.29
		1	24	22.44	22.30	22.32
		12	0	21.13	21.42	21.33
		12	6	21.07	21.16	21.28
		12	13	21.02	21.07	21.17
		25	0	21.13	21.14	21.33

	16QAM	1	0	20.77	20.89	20.70
		1	13	20.81	20.79	20.76
		1	24	20.77	21.03	21.02
		12	0	20.27	20.10	20.18
		12	6	20.11	20.51	20.05
		12	13	20.47	20.29	20.57
		25	0	20.50	20.21	20.46
	64QAM	0	20.72	20.90	20.88	0
		13	20.93	20.91	20.72	13
		24	20.90	20.91	20.90	24
		0	19.67	19.78	19.63	0
		6	19.67	19.74	19.86	6
		13	19.69	19.78	19.87	13
		0	19.81	19.67	19.87	0

Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel
				20425	20525	20625
5MHz	QPSK	1	0	22.45	22.38	22.28
		1	13	22.34	22.27	22.32
		1	24	22.35	22.36	22.22
		12	0	21.04	21.04	20.99
		12	6	21.03	21.22	21.20
		12	13	20.93	21.12	21.10
		25	0	21.21	21.23	21.04
	16QAM	1	0	20.91	20.70	20.68
		1	13	21.09	20.91	21.12
		1	24	20.92	20.92	20.67
		12	0	20.30	20.00	20.20
		12	6	20.36	19.85	20.05
		12	13	20.08	20.20	20.29
		25	0	19.89	20.33	20.29
	64QAM	1	0	20.75	20.79	20.79
		1	13	20.70	20.75	20.96
		1	24	20.79	20.97	20.89
		12	0	19.68	19.74	19.66
		12	6	19.76	19.59	19.74
		12	13	19.59	19.69	19.57
		25	0	19.69	19.77	19.66
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel
				20450	20525	20600
10MHz	QPSK	1	0	22.30	22.35	22.23
		1	13	22.59	22.62	22.59
		1	24	22.29	22.33	22.37
		12	0	21.12	21.09	21.30
		12	6	21.42	21.14	21.14
		12	13	21.33	21.14	21.03
		25	0	21.26	21.42	21.33
	16QAM	1	0	20.78	20.98	21.02

		1	13	20.81	20.89	21.23
		1	24	20.78	20.79	21.07
		12	0	20.50	20.57	20.57
		12	6	20.47	20.11	20.67
		12	13	20.54	20.51	20.15
		25	0	20.41	20.18	20.05
	64QAM	1	0	20.82	20.91	20.98
		1	13	21.11	21.12	21.10
		1	24	20.71	20.91	20.76
		12	0	19.89	19.65	19.65
		12	6	19.79	19.63	19.79
		12	13	19.78	19.78	19.69
		25	0	19.86	19.79	19.60

LTE Band 7

Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel
				20775	21100	21425
5MHz	QPSK	1	0	17.19	17.02	17.09
		1	13	17.26	17.20	17.03
		1	24	17.16	17.02	17.00
		12	0	15.84	16.06	16.09
		12	6	15.85	16.14	15.97
		12	13	16.01	15.94	15.94
		25	0	16.14	16.09	15.85
	16QAM	1	0	15.86	15.50	15.74
		1	13	15.59	15.66	15.66
		1	24	15.66	16.00	15.95
		12	0	15.15	14.99	14.89
		12	6	14.91	14.75	14.99
		12	13	14.80	15.32	15.23
		25	0	15.04	15.08	15.13
	64QAM	1	0	15.56	15.74	15.46
		1	13	15.60	15.64	15.64
		1	24	15.46	15.46	15.64
		12	0	14.59	14.58	14.49
		12	6	14.42	14.57	14.43
		12	13	14.43	14.57	14.42
		25	0	14.56	14.56	14.56
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel
				20800	21100	21400
10MHz	QPSK	1	0	17.19	17.02	17.14
		1	13	17.17	16.98	17.17
		1	24	17.00	17.24	16.99
		12	0	15.93	15.96	16.09
		12	6	16.01	15.96	15.99
		12	13	15.99	15.96	15.84
		25	0	15.84	15.84	16.09

	16QAM	1	0	15.48	15.41	15.68
		1	13	15.65	15.57	15.56
		1	24	15.68	15.38	15.84
		12	0	15.11	15.07	14.87
		12	6	14.95	15.18	14.70
		12	13	15.04	14.67	14.54
		25	0	14.82	14.87	15.11
	64QAM	1	0	15.55	15.51	15.73
		1	13	15.73	15.48	15.59
		1	24	15.59	15.66	15.57
		12	0	14.43	14.34	14.57
		12	6	14.33	14.34	14.43
		12	13	14.47	14.26	14.51
		25	0	14.33	14.28	14.47

Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel
				20825	21100	21375
15MHz	QPSK	1	0	17.00	17.19	17.20
		1	13	17.11	17.24	17.14
		1	24	17.24	17.24	17.08
		12	0	15.86	16.01	15.87
		12	6	15.77	15.86	15.93
		12	13	16.04	15.74	16.09
		25	0	15.93	15.93	15.84
	16QAM	1	0	15.69	15.48	15.43
		1	13	15.41	15.68	15.32
		1	24	15.75	15.75	15.55
		12	0	15.10	14.87	14.62
		12	6	14.83	14.54	14.94
		12	13	14.87	14.94	14.59
		25	0	15.13	14.87	15.02
	64QAM	1	0	15.48	15.73	15.73
		1	13	15.59	15.59	15.51
		1	24	15.67	15.51	15.59
		12	0	14.33	14.49	14.33
		12	6	14.33	14.21	14.21
		12	13	14.57	14.46	14.33
		25	0	14.33	14.21	14.54
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel
				20850	21100	21350
20MHz	QPSK	1	0	17.25	17.02	17.16
		1	50	17.41	17.42	17.37
		1	99	17.00	17.21	17.20
		50	0	16.09	16.14	16.06
		50	25	15.85	15.94	15.96
		50	50	15.87	16.19	16.14
		100	0	15.94	16.06	15.96

	16QAM	1	0	15.59	15.68	15.70
		1	50	15.92	15.50	15.68
		1	99	15.86	15.86	15.72
		50	0	14.88	14.99	15.20
		50	25	14.80	14.75	15.39
		50	50	15.39	15.08	15.03
		100	0	14.91	15.28	14.88
	64QAM	1	0	15.46	15.46	15.46
		1	50	15.84	15.88	15.90
		1	99	15.49	15.56	15.46
		50	0	14.67	14.56	14.61
		50	25	14.59	14.36	14.44
		50	50	14.49	14.43	14.44
		100	0	14.67	14.38	14.44

LTE Band 38

Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel
				37775	38000	38225
5MHz	QPSK	1	0	20.00	20.00	20.16
		1	13	19.97	20.13	20.14
		1	24	20.13	20.01	20.00
		12	0	18.89	18.94	18.87
		12	6	19.05	18.95	18.85
		12	13	18.81	18.80	18.89
		25	0	18.73	19.03	18.94
	16QAM	1	0	18.49	18.38	18.87
		1	13	18.54	18.38	18.80
		1	24	18.70	18.62	18.51
		12	0	17.72	18.13	18.35
		12	6	18.12	17.96	18.13
		12	13	18.19	17.77	18.17
		25	0	18.26	18.18	18.24
	64QAM	1	0	17.73	17.84	17.66
		1	13	17.73	17.84	17.87
		1	24	17.67	17.67	17.76
		12	0	16.60	16.79	16.63
		12	6	16.65	16.82	16.76
		12	13	16.63	16.60	16.57
		25	0	16.82	16.67	16.59
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel
				37800	38000	38200
10MHz	QPSK	1	0	20.02	20.03	19.92
		1	13	19.99	20.03	20.03
		1	24	20.03	20.02	20.07
		12	0	18.84	18.84	18.62
		12	6	18.95	18.76	18.84
		12	13	18.61	18.84	18.76
		25	0	18.84	18.84	18.70

	16QAM	1	0	18.76	18.76	18.51
		1	13	18.69	18.52	18.64
		1	24	18.68	18.40	18.38
		12	0	18.22	17.91	17.60
		12	6	17.63	18.05	17.51
		12	13	17.63	17.56	17.59
		25	0	17.64	17.77	18.00
	64QAM	1	0	17.75	17.83	17.65
		1	13	17.65	17.90	17.73
		1	24	17.69	17.89	17.89
		12	0	16.55	16.68	16.49
		12	6	16.66	16.50	16.72
		12	13	16.50	16.58	16.64
		25	0	16.69	16.74	16.72

Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel
				37825	38000	38175
15MHz	QPSK	1	0	19.96	19.92	19.97
		1	13	20.12	19.92	19.92
		1	24	19.99	19.86	20.09
		12	0	18.91	18.76	19.03
		12	6	18.87	18.84	18.76
		12	13	18.87	18.79	18.94
		25	0	18.84	18.75	18.85
	16QAM	1	0	18.61	18.68	18.51
		1	13	18.27	18.27	18.41
		1	24	18.61	18.24	18.38
		12	0	18.00	17.98	18.15
		12	6	17.85	17.46	17.64
		12	13	17.59	17.51	17.97
		25	0	18.22	18.15	18.05
	64QAM	1	0	17.81	17.83	17.69
		1	13	17.68	17.73	17.81
		1	24	17.68	17.77	17.82
		12	0	16.66	16.61	16.61
		12	6	16.68	16.64	16.46
		12	13	16.60	16.57	16.66
		25	0	16.51	16.60	16.64
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel
				37850	38000	38150
20MHz	QPSK	1	0	20.05	20.01	20.07
		1	50	20.27	20.26	20.26
		1	99	20.14	19.98	19.98
		50	0	18.87	18.97	18.95
		50	25	18.81	18.73	18.83
		50	50	19.01	19.13	18.71
		100	0	18.81	19.05	18.94
	16QAM	1	0	18.52	18.73	18.54

		1	50	18.38	18.49	18.35
		1	99	18.75	18.63	18.70
		50	0	17.84	17.81	17.67
		50	25	17.72	17.72	17.81
		50	50	17.96	18.19	17.80
		100	0	17.67	18.21	17.84
	64QAM	1	0	17.83	17.67	17.76
		1	50	18.04	18.07	18.07
		1	99	17.82	17.69	17.78
		50	0	16.60	16.84	16.71
		50	25	16.57	16.68	16.60
		50	50	16.82	16.60	16.63
		100	0	16.68	16.76	16.71

LTE Band 41

Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel
				39675	40620	41565
5MHz	QPSK	1	0	19.65	19.72	19.64
		1	13	19.69	19.73	19.69
		1	24	19.68	19.71	19.69
		12	0	18.75	18.78	18.89
		12	6	18.78	18.75	18.94
		12	13	18.74	18.75	18.96
		25	0	18.71	18.74	18.98
	16QAM	1	0	18.75	18.72	19.02
		1	13	18.74	18.72	19.04
		1	24	18.79	18.72	19.01
		12	0	17.81	17.94	18.17
		12	6	17.81	17.97	18.14
		12	13	17.78	17.93	18.17
		25	0	17.83	17.95	18.12
	64QAM	1	0	17.80	17.99	18.17
		1	13	17.83	17.98	18.14
		1	24	17.85	17.98	18.16
		12	0	16.78	16.94	17.15
		12	6	16.74	16.91	17.12
		12	13	16.71	16.92	17.17
		25	0	16.72	16.93	17.21
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel
				39700	40620	41540
10MHz	QPSK	1	0	19.72	19.73	19.60
		1	25	19.76	19.73	19.64
		1	49	19.71	19.70	19.64
		25	0	18.91	18.74	18.85
		25	12	18.94	18.73	18.86
		25	25	18.95	18.72	18.81
		50	0	18.93	18.75	18.78

	16QAM	1	0	18.88	18.71	18.78
		1	25	18.83	18.76	18.76
		1	49	18.88	18.79	18.72
		25	0	17.92	18.00	17.79
		25	12	17.98	18.00	17.72
		25	25	17.93	18.01	17.71
		50	0	17.94	18.03	17.73
	64QAM	1	0	17.96	18.05	17.72
		1	25	17.92	18.06	17.68
		1	49	17.94	18.08	17.73
		25	0	16.85	16.99	16.75
		25	12	16.86	16.96	16.71
		25	25	16.82	16.96	16.73
		50	0	16.83	16.98	16.71
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel
				39725	40620	41515
15MHz	QPSK	1	0	19.72	19.74	19.66
		1	37	19.72	19.76	19.66
		1	74	19.71	19.71	19.66
		36	0	18.74	18.79	18.89
		36	20	18.69	18.82	18.86
		36	39	18.69	18.77	18.86
		75	0	18.73	18.72	18.87
	16QAM	1	0	18.77	18.77	18.90
		1	37	18.77	18.74	18.91
		1	74	18.74	18.70	18.95
		36	0	17.79	17.93	18.16
		36	20	17.82	17.93	18.10
		36	39	17.78	17.95	18.11
		75	0	17.75	17.90	18.15
	64QAM	1	0	17.79	17.85	18.11
		1	37	17.76	17.88	18.08
		1	74	17.80	17.91	18.05

		36	0	16.70	16.89	17.04
		36	20	16.68	16.94	17.04
		36	39	16.64	16.94	17.00
		75	0	16.68	16.95	17.01
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel
				39750	40620	41490
20MHz	QPSK	1	0	19.73	19.73	19.70
		1	50	19.76	19.76	19.70
		1	99	19.75	19.74	19.66
		50	0	18.93	18.91	18.71
		50	25	18.93	18.94	18.72
		50	50	18.88	18.90	18.75
		100	0	18.89	18.89	18.78
	16QAM	1	0	18.93	18.88	18.75
		1	50	18.98	18.92	18.70
		1	99	18.99	18.95	18.72
		50	0	18.03	18.06	17.77
		50	25	18.05	18.02	17.77
		50	50	18.07	18.03	17.79
		100	0	18.09	18.05	17.76
	64QAM	1	0	18.07	18.04	17.78
		1	50	18.03	18.07	17.78
		1	99	18.03	18.03	17.81
		50	0	17.00	16.98	16.76
		50	25	16.96	16.98	16.77
		50	50	16.98	16.96	16.75
		100	0	16.98	17.00	16.73

2.4G WIFI original Power / Body

802.11b AVERAGE CONDUCTED POWER (dBm)					
Channel	Frequency (MHz)	Data Rate (Mbps)			
		1	2	5.5	11
CH 01	2,412	13.89	13.71	13.65	13.61
CH 06	2,437	14.11	13.91	13.82	13.80
CH 11	2,462	13.72	13.59	13.56	13.48

802.11g AVERAGE CONDUCTED POWER (dBm)									
Channel	Frequency (MHz)	Data Rate (Mbps)							
		6	9	12	18	24	36	48	54
CH 01	2,412	14.72	14.46	14.37	14.31	14.15	14.10	13.95	13.89
CH 06	2,437	17.78	17.49	17.36	17.30	17.14	17.09	16.99	16.88
CH 11	2,462	12.72	12.55	12.45	12.38	12.30	12.15	12.06	11.97

802.11n-HT20 AVERAGE CONDUCTED POWER (dBm)									
Channel	Frequency (MHz)	Data Rate							
		MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7
CH 01	2,412	14.67	14.30	14.22	14.14	13.95	13.79	13.58	13.26
CH 06	2,437	17.20	16.74	16.63	16.61	16.37	16.23	16.10	15.74
CH 11	2,462	12.25	12.01	11.84	11.82	11.63	11.47	11.26	10.99

802.11n-HT40 AVERAGE CONDUCTED POWER (dBm)									
Channel	Frequency (MHz)	Data Rate							
		MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7
CH 03	2,422	12.25	11.98	11.89	11.77	11.63	11.46	11.26	10.92
CH 07	2,442	16.54	16.16	16.03	16.05	15.86	15.69	15.51	15.17
CH 09	2,452	10.50	10.14	10.02	9.99	9.78	9.65	9.42	9.07

802.11ac-VHT20 AVERAGE CONDUCTED POWER (dBm)									
Channel	Frequency (MHz)	Data Rate							
		MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7
CH 01	2,412	14.56	14.35	14.18	13.84	13.52	12.59	12.17	11.91
CH 06	2,437	17.67	17.37	17.26	16.81	16.57	15.59	15.26	14.94

CH 11	2,462	12.38	12.31	12.17	11.75	11.42	10.52	10.15	9.82

802.11ac-VHT40 AVERAGE CONDUCTED POWER (dBm)									
Channel	Frequency (MHz)	Data Rate							
		MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7
CH 03	2,422	12.70	12.56	12.38	11.97	11.63	10.75	10.24	10.03
CH 07	2,442	16.70	16.53	16.34	15.96	15.62	14.67	14.36	14.09
CH 09	2,452	10.45	10.30	10.14	9.73	9.44	8.48	8.10	7.81

2.4G WIFI Reduce Power (Head)

802.11b AVERAGE CONDUCTED POWER (dBm)					
Channel	Frequency (MHz)	Data Rate (Mbps)			
		1	2	5.5	11
CH 01	2,412	13.94	13.75	13.65	13.63
CH 06	2,437	13.74	13.58	13.50	13.47
CH 11	2,462	13.70	13.60	13.53	13.49

802.11g AVERAGE CONDUCTED POWER (dBm)									
Channel	Frequency (MHz)	Data Rate (Mbps)							
		6	9	12	18	24	36	48	54
CH 01	2,412	14.80	14.48	14.34	14.27	14.14	14.04	13.98	13.86
CH 06	2,437	14.69	14.48	14.31	14.24	14.17	14.08	13.92	13.84
CH 11	2,462	12.69	12.53	12.47	12.38	12.27	12.18	12.08	11.96

802.11n-HT20 AVERAGE CONDUCTED POWER (dBm)									
Channel	Frequency (MHz)	Data Rate							
		MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7
CH 01	2,412	14.70	14.32	14.16	14.09	13.94	13.73	13.56	13.19
CH 06	2,437	14.61	14.26	14.09	14.07	13.93	13.77	13.57	13.24
CH 11	2,462	12.41	12.20	12.05	11.93	11.82	11.67	11.43	11.14

802.11n-HT40 AVERAGE CONDUCTED POWER (dBm)									
Channel	Frequency (MHz)	Data Rate							
		MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7
CH 03	2,422	12.64	12.30	12.20	12.14	11.97	11.73	11.62	11.27
CH 07	2,442	14.20	13.90	13.76	13.68	13.48	13.31	13.16	12.84
CH 09	2,452	10.17	9.82	9.73	9.60	9.44	9.29	9.12	8.78

802.11ac-VHT20 AVERAGE CONDUCTED POWER (dBm)									
Channel	Frequency (MHz)	Data Rate							
		MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7
CH 01	2,412	14.35	14.12	13.91	13.49	13.23	12.32	11.84	11.60
CH 06	2,437	14.30	14.10	13.94	13.58	13.24	12.31	11.96	11.66
CH 11	2,462	12.60	12.49	12.33	11.96	11.66	10.68	10.32	10.06

802.11ac-VHT40 AVERAGE CONDUCTED POWER (dBm)									
Channel	Frequency (MHz)	Data Rate							
		MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7
CH 03	2,422	12.39	12.18	12.08	11.66	11.40	10.43	10.00	9.79
CH 07	2,442	14.18	14.04	13.87	13.47	13.11	12.23	11.80	11.52
CH 09	2,452	10.26	10.09	9.96	9.53	9.22	8.25	7.95	7.60

2.4G WIFI Reduce Power (Head Simultaneous)

802.11b AVERAGE CONDUCTED POWER (dBm)					
Channel	Frequency (MHz)	Data Rate (Mbps)			
		1	2	5.5	11
CH 01	2,412	12.86	12.63	12.61	12.51
CH 06	2,437	12.84	12.68	12.63	12.55
CH 11	2,462	12.68	12.57	12.51	12.43

802.11g AVERAGE CONDUCTED POWER (dBm)									
Channel	Frequency (MHz)	Data Rate (Mbps)							
		6	9	12	18	24	36	48	54
CH 01	2,412	12.62	12.33	12.23	12.14	12.03	11.88	11.83	11.70
CH 06	2,437	12.59	12.35	12.29	12.13	12.02	11.95	11.81	11.79
CH 11	2,462	12.32	12.20	12.04	11.94	11.85	11.78	11.67	11.58

802.11n-HT20 AVERAGE CONDUCTED POWER (dBm)									
Channel	Frequency (MHz)	Data Rate							
		MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7
CH 01	2,412	12.26	11.88	11.73	11.77	11.54	11.36	11.24	10.89
CH 06	2,437	12.48	12.08	11.92	11.89	11.67	11.49	11.36	11.03
CH 11	2,462	12.25	12.00	11.88	11.79	11.65	11.50	11.32	10.92

802.11n-HT40 AVERAGE CONDUCTED POWER (dBm)									
Channel	Frequency (MHz)	Data Rate							
		MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7
CH 03	2,422	12.43	12.13	11.92	11.89	11.72	11.59	11.37	11.06
CH 07	2,442	12.48	12.03	11.94	11.83	11.68	11.50	11.31	11.01
CH 09	2,452	10.47	10.11	10.03	9.90	9.73	9.58	9.44	9.09

802.11ac-VHT20 AVERAGE CONDUCTED POWER (dBm)									
Channel	Frequency (MHz)	Data Rate							
		MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7
CH 01	2,412	12.50	12.31	12.20	11.80	11.43	10.47	10.02	9.84
CH 06	2,437	12.65	12.42	12.24	11.80	11.50	10.57	10.27	9.94
CH 11	2,462	12.15	12.07	11.91	11.54	11.22	10.26	9.94	9.60

802.11ac-VHT40 AVERAGE CONDUCTED POWER (dBm)									
Channel	Frequency (MHz)	Data Rate							
		MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7
CH 03	2,422	12.60	12.42	12.22	11.90	11.52	10.63	10.12	10.00
CH 07	2,442	12.61	12.40	12.26	11.86	11.60	10.63	10.25	9.99
CH 09	2,452	10.55	10.41	10.20	9.79	9.47	8.52	8.20	7.94

2.4G WIFI Reduce Power (Body Simultaneous)

802.11b AVERAGE CONDUCTED POWER (dBm)					
Channel	Frequency (MHz)	Data Rate (Mbps)			
		1	2	5.5	11
CH 01	2,412	13.66	13.54	13.47	13.41
CH 06	2,437	14.17	13.96	13.88	13.82
CH 11	2,462	14.14	14.00	13.93	13.84

802.11g AVERAGE CONDUCTED POWER (dBm)									
Channel	Frequency (MHz)	Data Rate (Mbps)							
		6	9	12	18	24	36	48	54
CH 01	2,412	14.80	14.58	14.47	14.38	14.27	14.20	14.06	13.98
CH 06	2,437	16.29	15.96	15.90	15.77	15.64	15.53	15.44	15.36
CH 11	2,462	12.72	12.57	12.46	12.35	12.27	12.14	12.09	12.01

802.11n-HT20 AVERAGE CONDUCTED POWER (dBm)									
Channel	Frequency (MHz)	Data Rate							
		MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7
CH 01	2,412	14.57	14.25	14.07	14.07	13.83	13.68	13.51	13.21
CH 06	2,437	15.86	15.44	15.26	15.27	15.11	14.93	14.73	14.36
CH 11	2,462	12.56	12.31	12.19	12.12	11.98	11.81	11.56	11.30

802.11n-HT40 AVERAGE CONDUCTED POWER (dBm)									
Channel	Frequency (MHz)	Data Rate							
		MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7
CH 03	2,422	12.48	12.11	12.02	11.93	11.80	11.66	11.38	11.08
CH 07	2,442	16.12	15.76	15.64	15.55	15.45	15.29	15.07	14.70
CH 09	2,452	10.31	9.96	9.84	9.76	9.56	9.46	9.22	8.89

802.11ac-VHT20 AVERAGE CONDUCTED POWER (dBm)									
Channel	Frequency (MHz)	Data Rate							
		MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7
CH 01	2,412	14.48	14.34	14.17	13.75	13.49	12.52	12.04	11.84
CH 06	2,437	16.06	15.80	15.64	15.25	14.93	14.02	13.62	13.38
CH 11	2,462	12.47	12.39	12.19	11.79	11.51	10.55	10.22	9.94

802.11ac-VHT40 AVERAGE CONDUCTED POWER (dBm)									
Channel	Frequency (MHz)	Data Rate							
		MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7
CH 03	2,422	12.23	12.03	11.87	11.54	11.21	10.28	9.77	9.55
CH 07	2,442	15.75	15.61	15.45	15.05	14.74	13.74	13.43	13.08
CH 09	2,452	10.31	10.16	9.95	9.57	9.27	8.32	8.01	7.68

5G WIFI Original power / Head

Band (GHz)	Mode	Data Rate	CH#	Freq (MHz)	AVERAGE CONDUCTED POWER (dBm)
5.2G	802.11a	6Mbps	36	5180	15.71
			40	5200	16.83
			44	5220	16.74
			48	5240	16.23
	802.11n (HT20)	MCS0	36	5180	15.45
			40	5200	16.62
			48	5240	15.78
	802.11n (HT40)	MCS0	38	5190	14.16
			46	5230	16.37
	802.11ac (VHT20)	MCS0	36	5180	15.48
			40	5200	16.47
			48	5240	15.73
	802.11ac (VHT40)	MCS0	38	5190	14.10
			46	5230	16.17
	802.11ac (VHT80)	MCS0	42	5210	11.32
5.3G	802.11a	6Mbps	52	5260	15.36

			56	5280	15.37
			60	5300	15.14
			64	5320	11.83
	802.11n (HT20)	MCS0	52	5260	15.37
			60	5300	14.76
			64	5320	12.11
	802.11n (HT40)	MCS0	54	5270	16.78
			62	5310	13.18
	802.11ac (VHT20)	MCS0	52	5260	15.60
			60	5300	14.82
			64	5320	11.72
	802.11ac (VHT40)	MCS0	54	5270	16.70
			62	5310	12.75
	802.11ac (VHT80)	MCS0	58	5300	12.90
5.6G	802.11a	6Mbps	100	5500	12.19
			104	5520	15.23
			108	5540	16.67
			112	5560	16.69
			116	5580	16.75

			120	5600	16.84
			124	5620	16.75
			128	5640	16.73
			132	5660	16.70
			136	5680	14.78
			140	5700	12.74
	802.11n (HT20)	MCS0	100	5500	11.88
			116	5580	16.20
			140	5700	12.35
	802.11n (HT40)	MCS0	102	5510	10.42
			110	5550	13.67
			134	5670	12.79
	802.11ac (VHT20)	MCS0	100	5500	11.74
			116	5580	16.55
			140	5700	12.50
	802.11ac (VHT40)	MCS0	102	5510	10.61
			110	5550	13.28
			134	5670	12.73
	802.11ac (VHT80)	MCS0	106	5530	9.79
			122	5610	12.97

SRD	802.11a	6Mbps	149	5745	16.70
			157	5785	16.69
			165	5825	16.72
	802.11n (HT20)	MCS0	149	5745	16.68
			157	5785	16.33
			165	5825	16.38
	802.11n (HT40)	MCS0	151	5755	16.64
			159	5795	16.65
	802.11ac (VHT20)	MCS0	149	5745	16.29
			157	5785	16.48
			165	5825	16.66
	802.11ac (VHT40)	MCS0	151	5755	16.63
			159	5795	16.15
	802.11ac (VHT80)	MCS0	155	5775	16.18

5G WIFI Reduce power (Head Simultaneous)

Band (GHz)	Mode	Data Rate	CH#	Freq (MHz)	AVERAGE CONDUCTED POWER (dBm)
5.2G	802.11a	6Mbps	36	5180	14.21
			40	5200	14.29
			44	5220	14.32
			48	5240	14.18
	802.11n (HT20)	MCS0	36	5180	14.09
			40	5200	14.18
			48	5240	13.84
	802.11n (HT40)	MCS0	38	5190	13.75
			46	5230	14.03
	802.11ac (VHT20)	MCS0	36	5180	13.80
			40	5200	14.12
			48	5240	14.05
	802.11ac (VHT40)	MCS0	38	5190	14.17
			46	5230	13.79
	802.11ac (VHT80)	MCS0	42	5210	11.42
5.3G	802.11a	6Mbps	52	5260	14.34

			56	5280	13.99
			60	5300	14.23
			64	5320	11.94
	802.11n (HT20)	MCS0	52	5260	13.80
			60	5300	14.17
			64	5320	11.84
	802.11n (HT40)	MCS0	54	5270	14.06
			62	5310	13.09
	802.11ac (VHT20)	MCS0	52	5260	13.67
			60	5300	14.15
			64	5320	12.09
	802.11ac (VHT40)	MCS0	54	5270	14.20
			62	5310	13.03
	802.11ac (VHT80)	MCS0	58	5300	12.88
5.6G	802.11a	6Mbps	100	5500	12.21
			104	5520	14.25
			108	5540	14.30
			112	5560	14.31
			116	5580	14.30

			120	5600	14.17
			124	5620	14.24
			128	5640	14.27
			132	5660	14.29
			136	5680	14.33
			140	5700	12.72
	802.11n (HT20)	MCS0	100	5500	11.76
			116	5580	14.07
			140	5700	12.36
	802.11n (HT40)	MCS0	102	5510	10.21
			110	5550	13.66
			134	5670	12.93
	802.11ac (VHT20)	MCS0	100	5500	12.12
			116	5580	13.67
			140	5700	12.64
	802.11ac (VHT40)	MCS0	102	5510	10.16
			110	5550	13.95
			134	5670	13.10
	802.11ac (VHT80)	MCS0	106	5530	10.13
			122	5610	13.06

SRD	802.11a	6Mbps	149	5745	14.27
			157	5785	14.30
			165	5825	14.29
	802.11n (HT20)	MCS0	149	5745	13.84
			157	5785	13.75
			165	5825	13.88
	802.11n (HT40)	MCS0	151	5755	13.91
			159	5795	14.20
	802.11ac (VHT20)	MCS0	149	5745	14.17
			157	5785	13.65
			165	5825	13.91
	802.11ac (VHT40)	MCS0	151	5755	14.04
			159	5795	13.78
	802.11ac (VHT80)	MCS0	155	5775	13.77

5G WIFI Reduce power (Body)

Band (GHz)	Mode	Data Rate	CH#	Freq (MHz)	AVERAGE CONDUCTED POWER (dBm)
5.2G	802.11a	6Mbps	36	5180	15.47
			40	5200	15.46
			44	5220	15.09
			48	5240	15.31
	802.11n (HT20)	MCS0	36	5180	15.18
			40	5200	14.97
			48	5240	15.16
	802.11n (HT40)	MCS0	38	5190	13.61
			46	5230	15.19
	802.11ac (VHT20)	MCS0	36	5180	15.03
			40	5200	15.04
			48	5240	15.16
	802.11ac (VHT40)	MCS0	38	5190	13.32
			46	5230	15.12
	802.11ac (VHT80)	MCS0	42	5210	11.66
5.3G	802.11a	6Mbps	52	5260	15.66

			56	5280	15.68
			60	5300	15.52
			64	5320	11.91
	802.11n (HT20)	MCS0	52	5260	15.30
			60	5300	15.25
			64	5320	12.09
	802.11n (HT40)	MCS0	54	5270	15.36
			62	5310	12.66
	802.11ac (VHT20)	MCS0	52	5260	15.26
			60	5300	15.31
			64	5320	11.86
	802.11ac (VHT40)	MCS0	54	5270	15.13
			62	5310	13.00
	802.11ac (VHT80)	MCS0	58	5300	12.83
5.6G	802.11a	6Mbps	100	5500	12.22
			104	5520	15.30
			108	5540	15.34
			112	5560	15.28
			116	5580	15.29

			120	5600	15.25
			124	5620	15.24
			128	5640	15.20
			132	5660	15.26
			136	5680	13.81
			140	5700	12.72
	802.11n (HT20)	MCS0	100	5500	12.20
			116	5580	15.13
			140	5700	12.27
	802.11n (HT40)	MCS0	102	5510	10.34
			110	5550	13.28
			134	5670	13.11
	802.11ac (VHT20)	MCS0	100	5500	11.96
			116	5580	14.86
			140	5700	12.47
	802.11ac (VHT40)	MCS0	102	5510	10.60
			110	5550	13.66
			134	5670	12.82
	802.11ac (VHT80)	MCS0	106	5530	9.75
			122	5610	12.87

SRD	802.11a	6Mbps	149	5745	15.22
			157	5785	15.33
			165	5825	15.33
	802.11n (HT20)	MCS0	149	5745	15.21
			157	5785	14.95
			165	5825	15.19
	802.11n (HT40)	MCS0	151	5755	14.75
			159	5795	14.90
	802.11ac (VHT20)	MCS0	149	5745	14.67
			157	5785	15.00
			165	5825	15.15
	802.11ac (VHT40)	MCS0	151	5755	14.90
			159	5795	15.13
	802.11ac (VHT80)	MCS0	155	5775	15.11

5G WIFI Reduce power (Body Simultaneous)

Band (GHz)	Mode	Data Rate	CH#	Freq (MHz)	AVERAGE CONDUCTED POWER (dBm)
5.2G	802.11a	6Mbps	36	5180	11.31
			40	5200	11.36
			44	5220	11.20
			48	5240	11.36
	802.11n (HT20)	MCS0	36	5180	10.77
			40	5200	10.79
			48	5240	10.98
	802.11n (HT40)	MCS0	38	5190	10.80
			46	5230	11.05
	802.11ac (VHT20)	MCS0	36	5180	10.65
			40	5200	11.00
			48	5240	10.79
	802.11ac (VHT40)	MCS0	38	5190	10.65
			46	5230	10.68
	802.11ac (VHT80)	MCS0	42	5210	10.99
5.3G	802.11a	6Mbps	52	5260	11.20

			56	5280	11.06
			60	5300	11.26
			64	5320	11.28
	802.11n (HT20)	MCS0	52	5260	10.82
			60	5300	10.71
			64	5320	10.86
	802.11n (HT40)	MCS0	54	5270	10.66
			62	5310	10.71
	802.11ac (VHT20)	MCS0	52	5260	10.81
			60	5300	11.10
			64	5320	10.95
	802.11ac (VHT40)	MCS0	54	5270	11.20
			62	5310	10.74
	802.11ac (VHT80)	MCS0	58	5300	10.79
5.6G	802.11a	6Mbps	100	5500	11.18
			104	5520	11.20
			108	5540	11.34
			112	5560	11.24
			116	5580	11.30

			120	5600	11.25
			124	5620	11.26
			128	5640	11.36
			132	5660	11.31
			136	5680	11.22
			140	5700	11.17
	802.11n (HT20)	MCS0	100	5500	10.71
			116	5580	10.81
			140	5700	10.85
	802.11n (HT40)	MCS0	102	5510	10.20
			110	5550	11.12
			134	5670	10.92
	802.11ac (VHT20)	MCS0	100	5500	10.82
			116	5580	10.71
			140	5700	10.83
	802.11ac (VHT40)	MCS0	102	5510	10.70
			110	5550	11.11
			134	5670	10.93
	802.11ac (VHT80)	MCS0	106	5530	10.15
			122	5610	10.68

SRD	802.11a	6Mbps	149	5745	11.33
			157	5785	11.18
			165	5825	11.35
	802.11n (HT20)	MCS0	149	5745	10.87
			157	5785	10.91
			165	5825	11.20
	802.11n (HT40)	MCS0	151	5755	10.89
			159	5795	11.15
	802.11ac (VHT20)	MCS0	149	5745	10.72
			157	5785	10.73
			165	5825	11.05
	802.11ac (VHT40)	MCS0	151	5755	10.98
			159	5795	10.71
	802.11ac (VHT80)	MCS0	155	5775	10.80

Bluetooth 2.4GHz(BR/EDR) Band Conducted Power		
Channel	**Frequency(MHz)**	Conducted Power **(dBm)**
CH 0	2,402	12.13
CH 39	2,441	12.26
CH 78	2,480	12.21

BLE2.4GHz Band Conducted Power		
Channel	**Frequency(MHz)**	Conducted Power **(dBm)**
CH 0	2,402	8.08
CH 19	2,440	8.13
CH 39	2,480	8.04

Remark:

Output Power Measurement Considerations for Wi-Fi 2.4 GHz band

1. 2.4 GHz 802.11b DSSS:

- Output power measurement is not required:

o When SAR Test Exclusion according to KDB 447498 D01 applies.

o When other power measurement reduction applies.

- Otherwise, output power measurement is required on:

o Channels 1, 6, and 11, when the output power specified for other channels is no higher than the abovementioned channels.

o The closest adjacent channels to the aforementioned channels, when the output power specified for these adjacent channels is higher.

- For ease of identification, 802.11b DSSS is identified as the Initial Test Configuration for the 2.4 GHz band.

2. 2.4 GHz 802.11g/n OFDM

- Output power measurement is not required:

o When SAR Test Exclusion according to KDB 447498 D01 applies.

o When SAR Test Exclusion procedures for 2.4 GHz 802.11g/n OFDM applies, according to the SAR measurement results from 802.11b DSSS; see Section 11 of the report for details.

- Otherwise, output power measurement is required for 2.4 GHz 802.11g/n OFDM, with the

following considerations:
o If 40 MHz bandwidth configurations are supported, measure power for either Channel 6 or the highest specified output power channel.
o Output power measurement requirements for smaller bandwidth configurations are dependent on the SAR measurement results from the 40 MHz bandwidth configurations.
o If no 40 MHz bandwidth configurations are supported, then a channel selection process similar to 802.11b DSSS is applied.
- The output power measurement is required for 2.4 GHz 802.11g/n OFDM as a result of 802.11b DSSS reported SAR results, the required test configurations in 2.4 GHz 802.11g/n OFDM are identified as Subsequent Test Configurations with respect to the Initial Test Configuration status assigned to 802.11b DSSS.
- If, for a particular antenna or transmit diversity condition supported by the device, no 802.11b DSSS configurations are available, output power should also be measured as a default for 802.11g/n OFDM when SAR Test Exclusion according to KDB 447498 D01 does not apply; these 802.11g/n OFDM configurations are considered the Initial Test Configurations for the respective antenna/transmit diversity condition.
Initial Test Position SAR Test Reduction
For both DSSS and OFDM wireless modes, when an Initial Test Configuration is found to require SAR measurements, an Initial Test Position is established for each applicable exposure configuration (Head, Body, etc.) using either:
- Design implementation details from the manufacturer, or
- Investigative results by the test lab, obtained by performing area scans on the Initial Test Configuration for all applicable test positions and identifying the highest measured SAR from the area scan-only measurements.
Complete SAR scans are then performed on the established Initial Test Position on each exposure configuration, using the Initial Test Configuration. When the reported SAR for this Initial Test Position is: - ≤ 0.4 W/kg, further SAR measurement is not required for the other test positions in the exposure configuration and wireless mode combination within the frequency band or aggregated band. - > 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 closest/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 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 test 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.

12.3. SAR measurement Results

General Notes:

1) Per KDB447498 D01v06, all measurement SAR results are scaled to the maximum tune-up tolerance limit to demonstrate compliant.
2) Per KDB447498 D01v06, testing of other required channels within the operating mode of a frequency band is not required when the reported 1-g or 10-g SAR for the mid-band or highest output power channel is :≤0.8 W/kg or 2.0W/kg, for 1-g or 10-g respectively, when the transmission band is ≤100MHz. When the maximum output power variation across the required test channels is >1/2 dB, instead of the middle channel, the highest output power channel must be used.
3) Per KDB865664 D01v01r04, for each frequency band, repeated SAR measurement is required only when the measure SAR is ≥0.8W/kg; if the deviation among the repeated measurement is ≤20%, and the measured SAR<1.45W/kg, only one repeated measurement is required.
4) Per KDB 941225 D06 Hotspot Mode SAR v02:r01, the DUT dimension is bigger than 9cm*5cm, so 10mm is chosen as the test separation distance for Hotspot mode. When the antenna-to-edge distance is greater than 2.5cm, such position does not need to be tested.
5) Per KDB648474 D04v01r03, SAR is evaluated without a headset connected to the device. When the standalone reported body-worn SAR is ≤1.2W/kg, no additional SAR evaluations using a headset are required.
6) Per KDB865664 D02v01r02, SAR plot is only required for the highest measured SAR in each exposure configuration, wireless mode and frequency band combination; plots are also required when the measured SAR is >1.5W/kg, or >7.0W/kg for occupational exposure. The published RF exposure KDB procedures may require additional plots; for example, to support SAR to peak location separation ratio test exclusion and/or volume scan plots-processing (refer to appendix B for details).

GSM Notes:

Per KDB941225 D01v03r01, 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.

UMTS Notes:

Per KDB 941225 D01v03r01, when maximum output power and tune-up tolerance specified for production units in a secondary mode is ≤1/4dB 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..

Per KDB941225 D01v03, SAR is required for Rel. 8 DC-HSDPA when SAR is required for Rel. 5 HSDPA; otherwise, the 3G SAR test reduction procedure is applied to DC-HSDPA with 12.2 kbps RMC as the primary mode. Power is measured for DC-HSDPA according to the H-Set 12, FRC configuration in Table C.8.1.12 of 3GPP TS 34.121-1 to determine SAR test reduction. A primary and a secondary serving HS-DSCH Cell are required to perform the power measurement and for the results to be acceptable.

LTE Notes:

7) 1. Per KDB 941225 D05v02r05, 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 theupper edge, middle and lower edge of each required test channel.

8) 2. Per KDB 941225 D05v02r05, 50% RB alocation for QPSK SAR testing fllows 1RB QPSK allocation procedure.

9) 3. Per KDB 941225 D05v02r05, For QPSK with 100% RB alocation, 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

10) reported SAR for 1 RB and 50% RB allocation are≤0.8 W/kg. Otherwise, SAR is measured for the highest output power channel; and if the reported SAR is > 1.45 Wlkg, the remaining required test channels must also be tested.

11) 4. Per KDB 941225 D05v02r05, 16QAM output power for each RB allocation configuration is > not Vs dB higher than the same configuration in QPSK and the reported SAR for the QPSK configuration is≤1.45 W/kg; Per KDB 941225 D05v02r05,16QAM SAR testing is not required.

12) 5. Per KDB 941225 D05v02r05, Smaller bandwidth output power for each RB alocation configuration is > not % dB higher than the same configuration in the largest supported bandwidth, and the reported SAR for the largest supported bandwidth is≤1.45 Wlkg; Per KDB 941225 D05v02r05, smaller bandwidth SAR testing is not required.

13) 6. ForLTEB41B5/B12/B17 1 B26 1 B381 B71 the maximum bandwidth does not support three non-overlapping channels,per KDB 941225 D05v02r05, when a device supports overlapping channel assignment in a channel bandwidth configuration,the middle channel of the group of overlapping channels should be selected for testing.

14) 7. LTE band 2/4/17/38 SAR test was covered by Band 25/66/12/41; according to TCB workshop, SAR test for overlapping LTE bands can be reduced if

15) a. The maximum output power, including tolerance, for the smaller band is≤the larger band to qualify for the SAR test exclusion.The channel bandwidth and other operating parameters for the smaller band are fully supported by the larger band.

WLAN Notes

Per KDB 248227 D01v02r02, for all positions/configurations tested using the initial test position and subsequent test positions, when the reported SAR is > 0.8 W/kg, SAR is measured for these test positions/configurations on the subsequent next highest measured output power channel(s) until the reported SAR is ≤ 1.2 W/kg or all required channels are tested.

Per KDB 248227 D01v02r02, for 802.11g/n SAR testing is required. When the highest reported SAR for DSSS is adjusted by the ratio of OFDM to DSSS specified maximum output power and the adjusted SAR is > 1.2 W/kg.

Per KDB 248227 D01v02r02, for OFDM transmission configurations in the 2.4 GHz bands, When the same maximum power is specified for multiple transmission modes in a frequency band, the largest channel bandwidth, lowest order modulation, lowest data rate and lowest order 802.11g/n mode is used for SAR measurement, on the highest measured output power channel for each frequency band.

12.4. GSM850 SAR results

Configuration	Power Level	Mode	Position	Dist.(mm)	Ch.	Freq.(MHz)	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	1g Meas SAR (W/kg)	1g Scaled SAR (W/kg)
Ant1	State2	GSM (CS)	Left Cheek	0	190	836.6	31.50	32.5	1.26	0.35	0.45
	State2	GSM (CS)	Left Tilt	0	190	836.6	31.50	32.5	1.26	0.32	0.40
	State2	GSM (CS)	Right Cheek	0	190	836.6	31.50	32.5	1.26	0.49	0.62
	State2	GSM (CS)	Right Tilt	0	190	836.6	31.50	32.5	1.26	0.43	0.54
Ant0	original Power	GSM (CS)	Left Cheek	0	190	836.6	32.67	33.5	1.21	0.15	0.18
	original Power	GSM (CS)	Left Tilt	0	190	836.6	32.67	33.5	1.21	0.08	0.10
	original Power	GSM (CS)	Right Cheek	0	190	836.6	32.67	33.5	1.21	0.15	0.18
	original Power	GSM (CS)	Right Tilt	0	190	836.6	32.67	33.5	1.21	0.09	0.11
Ant1	original Power	GPRS/EDGE (GMSK, 2 Tx slots)	Front	10	190	836.6	30.28	30.5	1.05	0.12	0.13
	original Power	GPRS/EDGE (GMSK, 2 Tx slots)	Back	10	190	836.6	30.28	30.5	1.05	0.18	0.19
	original Power	GPRS/EDGE (GMSK, 2 Tx slots)	Left	10	190	836.6	30.28	30.5	1.05	0.09	0.09
	original Power	GPRS/EDGE (GMSK, 2 Tx slots)	Right	10	190	836.6	30.28	30.5	1.05	0.04	0.05
	original Power	GPRS/EDGE (GMSK, 2 Tx slots)	Top	10	190	836.6	30.28	30.5	1.05	0.17	0.18
	original Power	GPRS/EDGE (GMSK, 2 Tx slots)	Bottom	10	190	836.6	30.28	30.5	1.05	0.01	0.01
Ant0	original Power	GPRS/EDGE (GMSK, 2 Tx slots)	Front	10	190	836.6	30.29	30.5	1.05	0.15	0.16
	original Power	GPRS/EDGE (GMSK, 2 Tx slots)	Back	10	190	836.6	30.29	30.5	1.05	0.29	0.30
	original Power	GPRS/EDGE (GMSK, 2 Tx slots)	Left	10	190	836.6	30.29	30.5	1.05	0.11	0.12
	original Power	GPRS/EDGE (GMSK, 2 Tx slots)	Right	10	190	836.6	30.29	30.5	1.05	0.17	0.18
	original Power	GPRS/EDGE (GMSK, 2 Tx slots)	Top	10	190	836.6	30.29	30.5	1.05	0.01	0.01
	original Power	GPRS/EDGE (GMSK, 2 Tx slots)	Bottom	10	190	836.6	30.29	30.5	1.05	0.19	0.20
Ant1	original Power	GPRS/EDGE (GMSK, 2 Tx slots)	Front	15	190	836.6	30.28	30.5	1.05	0.07	0.08
	original Power	GPRS/EDGE (GMSK, 2 Tx slots)	Back	15	190	836.6	30.28	30.5	1.05	0.09	0.09
Ant0	original Power	GPRS/EDGE (GMSK, 2 Tx slots)	Front	15	190	836.6	30.29	30.5	1.05	0.15	0.16
	original Power	GPRS/EDGE (GMSK, 2 Tx slots)	Back	15	190	836.6	30.29	30.5	1.05	0.20	0.21

12.5. PCS1900 SAR results

Configuration	Power Level	Mode	Position	Dist.(mm)	Ch.	Freq.(MHz)	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	1g Meas SAR (W/kg)	1g Scaled SAR (W/kg)
Ant1	State2	GSM (CS)	Left Cheek	0	661	1880	25.81	26.0	1.04	0.40	0.41
	State2	GSM (CS)	Left Tilt	0	661	1880	25.81	26.0	1.04	0.49	0.51
	State2	GSM (CS)	Right Cheek	0	661	1880	25.81	26.0	1.04	0.57	0.59
	State2	GSM (CS)	Right Tilt	0	661	1880	25.81	26.0	1.04	0.65	0.68
Ant0	original Power	GSM (CS)	Left Cheek	0	661	1880	29.67	30.5	1.21	0.06	0.07
	original Power	GSM (CS)	Left Tilt	0	661	1880	29.67	30.5	1.21	0.01	0.02
	original Power	GSM (CS)	Right Cheek	0	661	1880	29.67	30.5	1.21	0.05	0.06
	original Power	GSM (CS)	Right Tilt	0	661	1880	29.67	30.5	1.21	0.01	0.02
Ant1	original Power	GPRS/EDGE (GMSK, 2 Tx slots)	Front	10	661	1880	27.46	27.5	1.01	0.48	0.49
	original Power	GPRS/EDGE (GMSK, 2 Tx slots)	Back	10	661	1880	27.46	27.5	1.01	0.71	0.72
	original Power	GPRS/EDGE (GMSK, 2 Tx slots)	Left	10	661	1880	27.46	27.5	1.01	0.16	0.16
	original Power	GPRS/EDGE (GMSK, 2 Tx slots)	Right	10	661	1880	27.46	27.5	1.01	0.07	0.07
	original Power	GPRS/EDGE (GMSK, 2 Tx slots)	Top	10	661	1880	27.46	27.5	1.01	0.74	0.75
	original Power	GPRS/EDGE (GMSK, 2 Tx slots)	Bottom	10	661	1880	27.46	27.5	1.01	0.01	0.01
Ant0	original Power	GPRS/EDGE (GMSK, 2 Tx slots)	Front	10	661	1880	27.21	27.5	1.07	0.19	0.20
	original Power	GPRS/EDGE (GMSK, 2 Tx slots)	Back	10	661	1880	27.21	27.5	1.07	0.47	0.50
	original Power	GPRS/EDGE (GMSK, 2 Tx slots)	Left	10	661	1880	27.21	27.5	1.07	0.12	0.13
	original Power	GPRS/EDGE (GMSK, 2 Tx slots)	Right	10	661	1880	27.21	27.5	1.07	0.05	0.06
	original Power	GPRS/EDGE (GMSK, 2 Tx slots)	Top	10	661	1880	27.21	27.5	1.07	0.01	0.01
	original Power	GPRS/EDGE (GMSK, 2 Tx slots)	Bottom	10	661	1880	27.21	27.5	1.07	0.61	0.65
Ant1	original Power	GPRS/EDGE (GMSK, 2 Tx slots)	Front	15	661	1880	27.46	27.5	1.01	0.24	0.24
	original Power	GPRS/EDGE (GMSK, 2 Tx slots)	Back	15	661	1880	27.46	27.5	1.01	0.34	0.34
Ant0	original Power	GPRS/EDGE (GMSK, 2 Tx slots)	Front	15	661	1880	27.21	27.5	1.07	0.11	0.11
	original Power	GPRS/EDGE (GMSK, 2 Tx slots)	Back	15	661	1880	27.21	27.5	1.07	0.23	0.24

12.6. WCDMA Band V SAR results

Configuration	Power Level	Mode	Position	Dist.(mm)	Ch.	Freq.(MHz)	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	1g Meas SAR (W/kg)	1g Scaled SAR (W/kg)
Head											
Ant1	State2	RMC	Left Cheek	0	4183	836.6	21.76	22.7	1.24	0.37	0.46
	State2	RMC	Left Tilt	0	4183	836.6	21.76	22.7	1.24	0.32	0.40
	State2	RMC	Right Cheek	0	4183	836.6	21.76	22.7	1.24	0.45	0.56
	State2	RMC	Right Tilt	0	4183	836.6	21.76	22.7	1.24	0.41	0.50
Ant0	original Power	RMC	Left Cheek	0	4183	836.6	24.19	24.7	1.12	0.20	0.22
	original Power	RMC	Left Tilt	0	4183	836.6	24.19	24.7	1.12	0.10	0.12
	original Power	RMC	Right Cheek	0	4183	836.6	24.19	24.7	1.12	0.19	0.21
	original Power	RMC	Right Tilt	0	4183	836.6	24.19	24.7	1.12	0.12	0.13
Ant1	original Power	RMC	Front	10	4183	836.6	24.12	24.7	1.14	0.14	0.15
	original Power	RMC	Back	10	4183	836.6	24.12	24.7	1.14	0.24	0.28
	original Power	RMC	Left	10	4183	836.6	24.12	24.7	1.14	0.09	0.10
	original Power	RMC	Right	10	4183	836.6	24.12	24.7	1.14	0.08	0.09
	original Power	RMC	Top	10	4183	836.6	24.12	24.7	1.14	0.17	0.19
	original Power	RMC	Bottom	10	4183	836.6	24.12	24.7	1.14	0.01	0.01
Ant0	original Power	RMC	Front	10	4183	836.6	24.19	24.7	1.12	0.17	0.19
	original Power	RMC	Back	10	4183	836.6	24.19	24.7	1.12	0.30	0.34
	original Power	RMC	Left	10	4183	836.6	24.19	24.7	1.12	0.13	0.15
	original Power	RMC	Right	10	4183	836.6	24.19	24.7	1.12	0.13	0.15
	original Power	RMC	Top	10	4183	836.6	24.19	24.7	1.12	0.01	0.01
	original Power	RMC	Bottom	10	4183	836.6	24.19	24.7	1.12	0.27	0.30
Ant1	original Power	RMC	Front	15	4183	836.6	24.12	24.7	1.14	0.09	0.10
	original Power	RMC	Back	15	4183	836.6	24.12	24.7	1.14	0.10	0.11
Ant0	original Power	RMC	Front	15	4183	836.6	24.19	24.7	1.12	0.16	0.18
	original Power	RMC	Back	15	4183	836.6	24.19	24.7	1.12	0.21	0.23

12.7. LTE Band 5 SAR results

Configuration	Power Level	BW	Modulation	RB Num	RB Start	Position	Dist. mm	Ch.	Freq. (MHz)	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	1g Meas SAR (W/kg)	1g Scaled SAR (W/kg)
Head														
Ant1	State2	10MHz	QPSK	1	13	Left Cheek	0	20525	836.5	21.83	22.8	1.25	0.39	0.48
	State2	10MHz	QPSK	1	13	Left Tilt	0	20525	836.5	21.83	22.8	1.25	0.32	0.40
	State2	10MHz	QPSK	1	13	Right Cheek	0	20525	836.5	21.83	22.8	1.25	0.45	0.56
	State2	10MHz	QPSK	1	13	Right Tilt	0	20525	836.5	21.83	22.8	1.25	0.40	0.50
Ant0	original Power	10MHz	QPSK	1	13	Left Cheek	0	20525	836.5	23.16	24.3	1.30	0.17	0.22
	original Power	10MHz	QPSK	1	13	Left Tilt	0	20525	836.5	23.16	24.3	1.30	0.10	0.12
	original Power	10MHz	QPSK	1	13	Right Cheek	0	20525	836.5	23.16	24.3	1.30	0.18	0.23
	original Power	10MHz	QPSK	1	13	Right Tilt	0	20525	836.5	23.16	24.3	1.30	0.10	0.13
Ant1	original Power	10MHz	QPSK	1	13	Front	10	20525	836.5	23.77	24.3	1.13	0.13	0.14
	original Power	10MHz	QPSK	1	13	Back	10	20525	836.5	23.77	24.3	1.13	0.21	0.24
	original Power	10MHz	QPSK	1	13	Left	10	20525	836.5	23.77	24.3	1.13	0.09	0.10
	original Power	10MHz	QPSK	1	13	Right	10	20525	836.5	23.77	24.3	1.13	0.07	0.08
	original Power	10MHz	QPSK	1	13	Top	10	20525	836.5	23.77	24.3	1.13	0.15	0.17
	original Power	10MHz	QPSK	1	13	Bottom	10	20525	836.5	23.77	24.3	1.13	0.01	0.01
Ant0	original Power	10MHz	QPSK	1	13	Front	10	20525	836.5	23.16	24.3	1.30	0.16	0.21
	original Power	10MHz	QPSK	1	13	Back	10	20525	836.5	23.16	24.3	1.30	0.30	0.39
	original Power	10MHz	QPSK	1	13	Left	10	20525	836.5	23.16	24.3	1.30	0.12	0.16
	original Power	10MHz	QPSK	1	13	Right	10	20525	836.5	23.16	24.3	1.30	0.16	0.20
	original Power	10MHz	QPSK	1	13	Top	10	20525	836.5	23.16	24.3	1.30	0.01	0.01
	original Power	10MHz	QPSK	1	13	Bottom	10	20525	836.5	23.16	24.3	1.30	0.19	0.24
Ant1	original Power	10MHz	QPSK	1	13	Front	15	20525	836.5	23.77	24.3	1.13	0.08	0.09
	original Power	10MHz	QPSK	1	13	Back	15	20525	836.5	23.77	24.3	1.13	0.09	0.10
Ant0	original Power	10MHz	QPSK	1	13	Front	15	20525	836.5	23.16	24.3	1.30	0.15	0.19
	original Power	10MHz	QPSK	1	13	Back	15	20525	836.5	23.16	24.3	1.30	0.19	0.24

12.8. LTE Band 7 SAR results

Configuration	Power Level	BW	Modulation	RB Num	RB Start	Position	Dist. mm	Ch.	Freq. (MHz)	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	1g Meas SAR (W/kg)	1g Scaled SAR (W/kg)
Head														
Ant1	State2	20MHz	QPSK	1	50	Left Cheek	0	21100	2535	16.52	17.6	1.28	0.25	0.32
	State2	20MHz	QPSK	1	50	Left Tilt	0	21100	2535	16.52	17.6	1.28	0.23	0.29
	State2	20MHz	QPSK	1	50	Right Cheek	0	21100	2535	16.52	17.6	1.28	0.53	0.68
	State2	20MHz	QPSK	1	50	Right Tilt	0	21100	2535	16.52	17.6	1.28	0.53	0.68
Ant0	original Power	20MHz	QPSK	1	50	Left Cheek	0	21100	2535	22.44	23.6	1.31	0.05	0.07
	original Power	20MHz	QPSK	1	50	Left Tilt	0	21100	2535	22.44	23.6	1.31	0.06	0.08
	original Power	20MHz	QPSK	1	50	Right Cheek	0	21100	2535	22.44	23.6	1.31	0.07	0.10
	original Power	20MHz	QPSK	1	50	Right Tilt	0	21100	2535	22.44	23.6	1.31	0.01	0.02
Ant1	State1	20MHz	QPSK	1	50	Front	10	21100	2535	19.71	20.6	1.23	0.28	0.34
	State1	20MHz	QPSK	1	50	Back	10	21100	2535	19.71	20.6	1.23	0.66	0.81
	State1	20MHz	QPSK	1	50	Left	10	21100	2535	19.71	20.6	1.23	0.50	0.61
	State1	20MHz	QPSK	1	50	Right	10	21100	2535	19.71	20.6	1.23	0.01	0.02
	State1	20MHz	QPSK	1	50	Top	10	21100	2535	19.71	20.6	1.23	0.51	0.62
	State1	20MHz	QPSK	1	50	Bottom	10	21100	2535	19.71	20.6	1.23	0.01	0.01
Ant0	State1	20MHz	QPSK	1	50	Front	10	21100	2535	20.18	21.1	1.24	0.21	0.25
	State1	20MHz	QPSK	1	50	Back	10	21100	2535	20.18	21.1	1.24	0.70	0.87
	State1	20MHz	QPSK	1	50	Left	10	21100	2535	20.18	21.1	1.24	0.01	0.01
	State1	20MHz	QPSK	1	50	Right	10	21100	2535	20.18	21.1	1.24	0.08	0.10
	State1	20MHz	QPSK	1	50	Top	10	21100	2535	20.18	21.1	1.24	0.01	0.02
	State1	20MHz	QPSK	1	50	Bottom	10	21100	2535	20.18	21.1	1.24	0.83	1.02
	State1	20MHz	QPSK	1	50	Bottom	10	20850	2510	20.19	21.1	1.23	0.72	0.89
	State1	20MHz	QPSK	1	50	Bottom	10	21350	2560	20.19	21.1	1.23	0.81	1.00
Ant1	State1	20MHz	QPSK	1	50	Front	15	21100	2535	19.71	20.6	1.23	0.14	0.18
	State1	20MHz	QPSK	1	50	Back	15	21100	2535	19.71	20.6	1.23	0.25	0.31
Ant0	State1	20MHz	QPSK	1	50	Front	15	21100	2535	20.18	21.1	1.24	0.11	0.14
	State1	20MHz	QPSK	1	50	Back	15	21100	2535	20.18	21.1	1.24	0.36	0.44

12.9. LTE Band 38 SAR results

Configuration	Power Level	BW	Modulation	RB Num	RB Start	Position	Dist. mm	Ch.	Freq. (MHz)	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	1g Meas SAR (W/kg)	1g Scaled SAR (W/kg)
Head														
Ant1	State2	20MHz	QPSK	1	50	Left Cheek	0	38000	2595	20.09	20.8	1.18	0.28	0.33
	State2	20MHz	QPSK	1	50	Left Tilt	0	38000	2595	20.09	20.8	1.18	0.21	0.25
	State2	20MHz	QPSK	1	50	Right Cheek	0	38000	2595	20.09	20.8	1.18	0.56	0.66
	State2	20MHz	QPSK	1	50	Right Tilt	0	38000	2595	20.09	20.8	1.18	0.49	0.57
Ant0	original Power	20MHz	QPSK	1	50	Left Cheek	0	38000	2595	23.21	23.8	1.15	0.04	0.05
	original Power	20MHz	QPSK	1	50	Left Tilt	0	38000	2595	23.21	23.8	1.15	0.06	0.07
	original Power	20MHz	QPSK	1	50	Right Cheek	0	38000	2595	23.21	23.8	1.15	0.06	0.07
	original Power	20MHz	QPSK	1	50	Right Tilt	0	38000	2595	23.21	23.8	1.15	0.04	0.04
Ant1	original Power	20MHz	QPSK	1	50	Front	10	38000	2595	23.33	23.8	1.11	0.33	0.37
	original Power	20MHz	QPSK	1	50	Back	10	38000	2595	23.33	23.8	1.11	0.56	0.62
	original Power	20MHz	QPSK	1	50	Left	10	38000	2595	23.33	23.8	1.11	0.47	0.52
	original Power	20MHz	QPSK	1	50	Right	10	38000	2595	23.33	23.8	1.11	0.01	0.01
	original Power	20MHz	QPSK	1	50	Top	10	38000	2595	23.33	23.8	1.11	0.34	0.37
	original Power	20MHz	QPSK	1	50	Bottom	10	38000	2595	23.33	23.8	1.11	0.05	0.05
Ant0	State1	20MHz	QPSK	1	50	Front	10	38000	2595	22.12	22.8	1.17	0.18	0.21
	State1	20MHz	QPSK	1	50	Back	10	38000	2595	22.12	22.8	1.17	0.56	0.66
	State1	20MHz	QPSK	1	50	Left	10	38000	2595	22.12	22.8	1.17	0.04	0.05
	State1	20MHz	QPSK	1	50	Right	10	38000	2595	22.12	22.8	1.17	0.08	0.09
	State1	20MHz	QPSK	1	50	Top	10	38000	2595	22.12	22.8	1.17	0.01	0.01
	State1	20MHz	QPSK	1	50	Bottom	10	38000	2595	22.12	22.8	1.17	0.70	0.81
	State1	20MHz	QPSK	1	50	Bottom	10	37850	2580	22.08	22.8	1.18	0.66	0.77
	State1	20MHz	QPSK	1	50	Bottom	10	38150	2610	22.17	22.8	1.16	0.61	0.70
Ant1	original Power	20MHz	QPSK	1	50	Front	15	38000	2595	23.33	23.8	1.11	0.16	0.18
	original Power	20MHz	QPSK	1	50	Back	15	38000	2595	23.33	23.8	1.11	0.23	0.26
Ant0	State1	20MHz	QPSK	1	50	Front	15	38000	2595	22.12	22.8	1.17	0.10	0.12
	State1	20MHz	QPSK	1	50	Back	15	38000	2595	22.12	22.8	1.17	0.29	0.34

12.10. LTE Band 41 SAR results

Configuration	Power Level	BW	Modulation	RB Num	RB Start	Position	Dist. mm	Ch.	Freq. (MHz)	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	1g Meas SAR (W/kg)	1g Scaled SAR (W/kg)
Head														
Ant1	State2	20MHz	QPSK	1	50	Left Cheek	0	40620	2593	20.12	20.3	1.042	0.214	0.22
	State2	20MHz	QPSK	1	50	Left Tilt	0	40620	2593	20.12	20.3	1.042	0.179	0.19
	State2	20MHz	QPSK	1	50	Right Cheek	0	40620	2593	20.12	20.3	1.042	0.524	0.55
	State2	20MHz	QPSK	1	50	Right Tilt	0	40620	2593	20.12	20.3	1.042	0.420	0.44
Ant0	original Power	20MHz	QPSK	1	50	Left Cheek	0	40620	2593	23.36	23.8	1.107	0.054	0.06
	original Power	20MHz	QPSK	1	50	Left Tilt	0	40620	2593	23.36	23.8	1.107	0.056	0.06
	original Power	20MHz	QPSK	1	50	Right Cheek	0	40620	2593	23.36	23.8	1.107	0.102	0.11
	original Power	20MHz	QPSK	1	50	Right Tilt	0	40620	2593	23.36	23.8	1.107	0.001	0.01
Ant1	State1	20MHz	QPSK	1	50	Front	10	40620	2593	22.09	23.3	1.321	0.155	0.20
	State1	20MHz	QPSK	1	50	Back	10	40620	2593	22.09	23.3	1.321	0.238	0.31
	State1	20MHz	QPSK	1	50	Left	10	40620	2593	22.09	23.3	1.321	0.231	0.31
	State1	20MHz	QPSK	1	50	Right	10	40620	2593	22.09	23.3	1.321	0.001	0.00
	State1	20MHz	QPSK	1	50	Top	10	40620	2593	22.09	23.3	1.321	0.143	0.19
	State1	20MHz	QPSK	1	50	Bottom	10	40620	2593	22.09	23.3	1.321	0.001	0.00
Ant0	State1	20MHz	QPSK	1	50	Front	10	40620	2593	22.36	22.8	1.107	0.086	0.10
	State1	20MHz	QPSK	1	50	Back	10	40620	2593	22.36	22.8	1.107	0.366	0.41
	State1	20MHz	QPSK	1	50	Left	10	40620	2593	22.36	22.8	1.107	0.001	0.01
	State1	20MHz	QPSK	1	50	Right	10	40620	2593	22.36	22.8	1.107	0.046	0.05
	State1	20MHz	QPSK	1	50	Top	10	40620	2593	22.36	22.8	1.107	0.001	0.01
	State1	20MHz	QPSK	1	50	Bottom	10	40620	2593	22.36	22.8	1.107	0.365	0.40
Ant1	State1	20MHz	QPSK	1	50	Front	15	40620	2593	22.09	23.3	1.321	0.145	0.19
	State1	20MHz	QPSK	1	50	Back	15	40620	2593	22.09	23.3	1.321	0.194	0.26
Ant0	State1	20MHz	QPSK	1	50	Front	15	40620	2593	22.36	22.8	1.107	0.095	0.11
	State1	20MHz	QPSK	1	50	Back	15	40620	2593	22.36	22.8	1.107	0.328	0.36

12.11. 2.4GWi-Fi SAR results

Config	Mode	Power Level	Position	Dist. (mm)	Ch.	Freq. (MHz)	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	1g Meas SAR (W/kg)	1g Scaled SAR (W/kg)
Head											
Ant2	802.11g	Power reduction	Left Cheek	0	1	2412	14.80	16.5	1.48	0.37	0.54
	802.11g	Power reduction	Left Tilt	0	1	2412	14.80	16.5	1.48	0.30	0.44
	802.11g	Power reduction	Right Cheek	0	1	2412	14.80	16.5	1.48	0.16	0.24
	802.11g	Power reduction	Right Tilt	0	1	2412	14.80	16.5	1.48	0.19	0.28
	802.11g	Power reduction	Front	10	6	2437	17.78	19.0	1.32	0.19	0.25
	802.11g	Power reduction	Back	10	6	2437	17.78	19.0	1.32	0.27	0.36
	802.11g	Power reduction	Left	10	6	2437	17.78	19.0	1.32	0.05	0.06
	802.11g	Power reduction	Right	10	6	2437	17.78	19.0	1.32	0.22	0.29
	802.11g	Power reduction	Top	10	6	2437	17.78	19.0	1.32	0.28	0.37
	802.11g	Power reduction	Bottom	10	6	2437	17.78	19.0	1.32	0.03	0.03
	802.11g	Power reduction	Front	15	6	2437	17.78	19.0	1.32	0.11	0.14
	802.11g	Power reduction	Back	15	6	2437	17.78	19.0	1.32	0.13	0.17
Simultaneous transmission(Head)											
Ant2	802.11b	Power reduction	Left Cheek	0	1	2412	12.86	14.0	1.30	0.20	0.26
	802.11b	Power reduction	Left Tilt	0	1	2412	12.86	14.0	1.30	0.17	0.23
	802.11b	Power reduction	Right Cheek	0	1	2412	12.86	14.0	1.30	0.09	0.11
	802.11b	Power reduction	Right Tilt	0	1	2412	12.86	14.0	1.30	0.11	0.15
Simultaneous transmission(Body 10mm)											
	802.11g	Power reduction	Front	10	6	2437	16.29	17.5	1.32	0.11	0.14
	802.11g	Power reduction	Back	10	6	2437	16.29	17.5	1.32	0.16	0.21
	802.11g	Power reduction	Left	10	6	2437	16.29	17.5	1.32	0.01	0.01
	802.11g	Power reduction	Right	10	6	2437	16.29	17.5	1.32	0.12	0.16
	802.11g	Power reduction	Top	10	6	2437	16.29	17.5	1.32	0.16	0.21
	802.11g	Power reduction	Bottom	10	6	2437	16.29	17.5	1.32	0.03	0.03
Simultaneous transmission(Body 15mm)											
	802.11g	Power reduction	Front	15	6	2437	16.29	17.5	1.32	0.06	0.08
	802.11g	Power reduction	Back	15	6	2437	16.29	17.5	1.32	0.07	0.10

12.12. 5.2GWi-Fi SAR results

Config	Mode	Power Level	Position	Dist. (mm)	Ch.	Freq. (MHz)	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	1g Meas SAR (W/kg)	1g Scaled SAR (W/kg)
Head											
Ant2	802.11a	Power reduction	Left Cheek	0	40	5200	16.83	18.0	1.31	0.56	0.73
	802.11a	Power reduction	Left Tilt	0	40	5200	16.83	18.0	1.31	0.44	0.58
	802.11a	Power reduction	Right Cheek	0	40	5200	16.83	18.0	1.31	0.18	0.24
	802.11a	Power reduction	Right Tilt	0	40	5200	16.83	18.0	1.31	0.21	0.28
	802.11a	Power reduction	Front	10	40	5200	15.46	16.5	1.27	0.09	0.12
	802.11a	Power reduction	Back	10	40	5200	15.46	16.5	1.27	0.58	0.74
	802.11a	Power reduction	Left	10	40	5200	15.46	16.5	1.27	0.11	0.14
	802.11a	Power reduction	Right	10	40	5200	15.46	16.5	1.27	0.33	0.41
	802.11a	Power reduction	Top	10	40	5200	15.46	16.5	1.27	0.28	0.35
	802.11a	Power reduction	Bottom	10	40	5200	15.46	16.5	1.27	0.05	0.07
	802.11a	Power reduction	Front	15	40	5200	15.46	16.5	1.27	0.06	0.07
	802.11a	Power reduction	Back	15	40	5200	15.46	16.5	1.27	0.38	0.48
Simultaneous transmission(Head)											
Ant2	802.11a	Power reduction	Left Cheek	0	40	5200	14.29	15.0	1.18	0.26	0.30
	802.11a	Power reduction	Left Tilt	0	40	5200	14.29	15.0	1.18	0.21	0.25
	802.11a	Power reduction	Right Cheek	0	40	5200	14.29	15.0	1.18	0.08	0.10
	802.11a	Power reduction	Right Tilt	0	40	5200	14.29	15.0	1.18	0.10	0.12
Simultaneous transmission(Body 10mm)											
Ant2	802.11a	Power reduction	Front	10	40	5200	11.36	12.0	1.16	0.05	0.06
	802.11a	Power reduction	Back	10	40	5200	11.36	12.0	1.16	0.18	0.21
	802.11a	Power reduction	Left	10	40	5200	11.36	12.0	1.16	0.07	0.08
	802.11a	Power reduction	Right	10	40	5200	11.36	12.0	1.16	0.10	0.12
	802.11a	Power reduction	Top	10	40	5200	11.36	12.0	1.16	0.09	0.10
	802.11a	Power reduction	Bottom	10	40	5200	11.36	12.0	1.16	0.07	0.08
Simultaneous transmission(Body 15mm)											
Ant2	802.11a	Power reduction	Front	15	40	5200	11.36	12.0	1.16	0.07	0.08
	802.11a	Power reduction	Back	15	40	5200	11.36	12.0	1.16	0.11	0.12

12.13. 5.3GWi-Fi SAR results

Config	Mode	Power Level	Position	Dist. (mm)	Ch.	Freq. (MHz)	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	1g Meas SAR (W/kg)	1g Scaled SAR (W/kg)
Head											
Ant2	802.11n(HT40)	Power reduction	Left Cheek	0	56	5280	16.78	18.0	1.32	0.50	0.66
	802.11n(HT40)	Power reduction	Left Tilt	0	56	5280	16.78	18.0	1.32	0.44	0.59
	802.11n(HT40)	Power reduction	Right Cheek	0	56	5280	16.78	18.0	1.32	0.21	0.27
	802.11n(HT40)	Power reduction	Right Tilt	0	56	5280	16.78	18.0	1.32	0.26	0.34
	802.11a	Power reduction	Front	10	56	5280	15.68	16.5	1.21	0.11	0.14
	802.11a	Power reduction	Back	10	56	5280	15.68	16.5	1.21	0.76	0.91
	802.11a	Power reduction	Left	10	56	5280	15.68	16.5	1.21	0.08	0.10
	802.11a	Power reduction	Right	10	56	5280	15.68	16.5	1.21	0.37	0.44
	802.11a	Power reduction	Top	10	56	5280	15.68	16.5	1.21	0.40	0.48
	802.11a	Power reduction	Bottom	10	56	5280	15.68	16.5	1.21	0.05	0.06
	802.11a	Power reduction	Back	10	52	5260	15.66	16.5	1.21	0.72	0.88
	802.11a	Power reduction	Back	10	64	5320	11.91	13.0	1.29	0.80	1.03
	802.11a	Power reduction	Front	15	56	5280	15.68	16.5	1.21	0.13	0.16
	802.11a	Power reduction	Back	15	56	5280	15.68	16.5	1.21	0.47	0.56
Simultaneous transmission(Head)											
Ant2	802.11a	Power reduction	Left Cheek	0	52	5260	14.34	15.0	1.16	0.23	0.27
	802.11a	Power reduction	Left Tilt	0	52	5260	14.34	15.0	1.16	0.20	0.23
	802.11a	Power reduction	Right Cheek	0	52	5260	14.34	15.0	1.16	0.09	0.10
	802.11a	Power reduction	Right Tilt	0	52	5260	14.34	15.0	1.16	0.11	0.13
Simultaneous transmission(Body 10mm)											
Ant2	802.11a	Power reduction	Front	10	56	5280	11.06	12.0	1.24	0.07	0.08
	802.11a	Power reduction	Back	10	56	5280	11.06	12.0	1.24	0.18	0.22
	802.11a	Power reduction	Left	10	56	5280	11.06	12.0	1.24	0.07	0.08
	802.11a	Power reduction	Right	10	56	5280	11.06	12.0	1.24	0.09	0.12
	802.11a	Power reduction	Top	10	56	5280	11.06	12.0	1.24	0.13	0.16
	802.11a	Power reduction	Bottom	10	56	5280	11.06	12.0	1.24	0.07	0.09
Simultaneous transmission(Body 15mm)											
Ant2	802.11a	Power reduction	Front	15	56	5280	11.06	12.0	1.24	0.06	0.08
	802.11a	Power reduction	Back	15	56	5280	11.06	12.0	1.24	0.12	0.15

Config	Mode	Power Level	Position	Dist. (mm)	Ch.	Freq. (MHz)	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	10g Meas SAR (W/kg)	10g Scaled SAR (W/kg)
Ant2	802.11a	Power reduction	Front	0	56	5280	15.68	16.5	1.21	0.36	0.43
	802.11a	Power reduction	Back	0	56	5280	15.68	16.5	1.21	0.92	1.11
	802.11a	Power reduction	Left	0	56	5280	15.68	16.5	1.21	0.02	0.03
	802.11a	Power reduction	Right	0	56	5280	15.68	16.5	1.21	0.88	1.07
	802.11a	Power reduction	Top	0	56	5280	15.68	16.5	1.21	0.52	0.63
	802.11a	Power reduction	Bottom	0	56	5280	15.68	16.5	1.21	0.03	0.04
	802.11a	Power reduction	Back	0	52	5260	15.66	16.5	1.21	0.76	0.92
	802.11a	Power reduction	Back	0	64	5320	11.91	13.0	1.29	0.81	1.04

12.14. 5.6GWi-Fi SAR results

Config	Mode	Power Level	Position	Dist. (mm)	Ch.	Freq. (MHz)	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	1g Meas SAR (W/kg)	1g Scaled SAR (W/kg)
Head											
Ant2	802.11a	Power reduction	Left Cheek	0	120	5600	16.84	18.0	1.31	0.48	0.63
	802.11a	Power reduction	Left Tilt	0	120	5600	16.84	18.0	1.31	0.58	0.76
	802.11a	Power reduction	Right Cheek	0	120	5600	16.84	18.0	1.31	0.39	0.52
	802.11a	Power reduction	Right Tilt	0	120	5600	16.84	18.0	1.31	0.49	0.64
	802.11a	Power reduction	Front	10	120	5600	15.25	16.5	1.33	0.16	0.21
	802.11a	Power reduction	Back	10	120	5600	15.25	16.5	1.33	0.86	1.15
	802.11a	Power reduction	Left	10	120	5600	15.25	16.5	1.33	0.07	0.09
	802.11a	Power reduction	Right	10	120	5600	15.25	16.5	1.33	0.30	0.40
	802.11a	Power reduction	Top	10	120	5600	15.25	16.5	1.33	0.64	0.85
	802.11a	Power reduction	Bottom	10	120	5600	15.25	16.5	1.33	0.12	0.16
	802.11a	Power reduction	Back	10	100	5500	12.22	13.5	1.34	0.82	1.10
	802.11a	Power reduction	Back	10	140	5700	12.72	14.0	1.34	0.79	1.06
						Battery #2					
	802.11a	Power reduction	Back	10	120	5600	15.25	16.5	1.33	0.81	1.08
						Battery #3					
	802.11a	Power reduction	Back	10	120	5600	15.25	16.5	1.33	0.78	1.04
						Worst case					
	802.11a	Power reduction	Back	10	120	5600	15.25	16.5	1.33	0.62	0.82
	802.11a	Power reduction	Front	15	120	5600	15.25	16.5	1.33	0.11	0.14
	802.11a	Power reduction	Back	15	120	5600	15.25	16.5	1.33	0.58	0.77
						Battery #2					
	802.11a	Power reduction	Back	15	120	5600	15.25	16.5	1.33	0.52	0.69
						Battery #3					
	802.11a	Power reduction	Back	15	120	5600	15.25	16.5	1.33	0.48	0.64
						Worst case					
	802.11a	Power reduction	Back	10	120	5600	15.25	16.5	1.33	0.37	0.49
Simultaneous transmission(Head)											
Ant2	802.11a	Power reduction	Left Cheek	0	120	5600	14.17	15.0	1.21	0.23	0.28
	802.11a	Power reduction	Left Tilt	0	120	5600	14.17	15.0	1.21	0.27	0.33
	802.11a	Power reduction	Right Cheek	0	120	5600	14.17	15.0	1.21	0.20	0.25
	802.11a	Power reduction	Right Tilt	0	120	5600	14.17	15.0	1.21	0.25	0.30
Simultaneous transmission(Body 10mm)											
Ant2	802.11a	Power reduction	Front	10	120	5600	11.25	12.0	1.19	0.05	0.06
	802.11a	Power reduction	Back	10	120	5600	11.25	12.0	1.19	0.25	0.30
	802.11a	Power reduction	Left	10	120	5600	11.25	12.0	1.19	0.06	0.08
	802.11a	Power reduction	Right	10	120	5600	11.25	12.0	1.19	0.08	0.10
	802.11a	Power reduction	Top	10	120	5600	11.25	12.0	1.19	0.17	0.20

	802.11a	Power reduction	Bottom	10	120	5600	11.25	12.0	1.19	0.06	0.07
Simultaneous transmission(Body 15mm)											
Ant2	802.11a	Power reduction	Front	15	120	5600	11.25	12.0	1.19	0.06	0.08
	802.11a	Power reduction	Back	15	120	5600	11.25	12.0	1.19	0.16	0.19

Config	Mode	Power Level	Position	Dist. (mm)	Ch.	Freq. (MHz)	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	10g Meas SAR (W/kg)	10g Scaled SAR (W/kg)
Ant2	802.11a	Power reduction	Front	0	120	5600	15.25	16.5	1.33	0.28	0.38
	802.11a	Power reduction	Back	0	120	5600	15.25	16.5	1.33	1.11	1.48
	802.11a	Power reduction	Left	0	120	5600	15.25	16.5	1.33	0.02	0.03
	802.11a	Power reduction	Right	0	120	5600	15.25	16.5	1.33	0.70	0.94
	802.11a	Power reduction	Top	0	120	5600	15.25	16.5	1.33	0.83	1.11
	802.11a	Power reduction	Bottom	0	120	5600	15.25	16.5	1.33	0.02	0.03
	802.11a	Power reduction	Back	0	100	5500	12.22	13.5	1.34	1.05	1.41
	802.11a	Power reduction	Back	0	140	5700	12.72	14.0	1.34	1.08	1.45

12.15. 5.8GWi-Fi SAR results

Config	Mode	Power Level	Position	Dist. (mm)	Ch.	Freq. (MHz)	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	1g Meas SAR (W/kg)	1g Scaled SAR (W/kg)
Head											
Ant2	802.11a	Power reduction	Left Cheek	0	157	5785	16.69	18.0	1.35	0.54	0.73
	802.11a	Power reduction	Left Tilt	0	157	5785	16.69	18.0	1.35	0.66	0.89
	802.11a	Power reduction	Right Cheek	0	157	5785	16.69	18.0	1.35	0.50	0.68
	802.11a	Power reduction	Right Tilt	0	157	5785	16.69	18.0	1.35	0.61	0.82
	802.11a	Power reduction	Left Tilt	0	149	5745	16.71	18.0	1.35	0.65	0.87
	802.11a	Power reduction	Left Tilt	0	165	5825	16.72	18.0	1.34	0.60	0.80
						Battery #2					
	802.11a	Power reduction	Left Tilt	0	157	5785	16.69	18.0	1.34	0.64	0.87
						Battery #3					
	802.11a	Power reduction	Left Tilt	0	157	5785	16.69	18.0	1.34	0.57	0.76
						Worst case					
	802.11a	Power reduction	Left Tilt	0	157	5785	16.69	18.0	1.34	0.44	0.59
	802.11a	Power reduction	Front	10	157	5785	15.33	16.5	1.31	0.17	0.223
	802.11a	Power reduction	Back	10	157	5785	15.33	16.5	1.31	0.79	1.028
	802.11a	Power reduction	Left	10	157	5785	15.33	16.5	1.31	0.15	0.190
	802.11a	Power reduction	Right	10	157	5785	15.33	16.5	1.31	0.28	0.370
	802.11a	Power reduction	Top	10	157	5785	15.33	16.5	1.31	0.55	0.720
	802.11a	Power reduction	Bottom	10	157	5785	15.33	16.5	1.31	0.06	0.075
	802.11a	Power reduction	Back	10	149	5745	15.22	16.5	1.34	0.84	1.121
	802.11a	Power reduction	Back	10	165	5825	15.33	16.5	1.31	0.80	1.046
	802.11a	Power reduction	Front	15	157	5785	15.33	16.5	1.31	0.09	0.114
	802.11a	Power reduction	Back	15	157	5785	15.33	16.5	1.31	0.47	0.609
Simultaneous transmission(Head)											
Ant2	802.11a	Power reduction	Left Cheek	0	157	5785	14.30	15.0	1.17	0.27	0.32
	802.11a	Power reduction	Left Tilt	0	157	5785	14.30	15.0	1.17	0.31	0.36
	802.11a	Power reduction	Right Cheek	0	157	5785	14.30	15.0	1.17	0.25	0.30
	802.11a	Power reduction	Right Tilt	0	157	5785	14.30	15.0	1.17	0.31	0.36
Simultaneous transmission(Body 10mm)											
Ant2	802.11a	Power reduction	Front	10	157	5785	11.18	12.0	1.21	0.06	0.08
	802.11a	Power reduction	Back	10	157	5785	11.18	12.0	1.21	0.25	0.30
	802.11a	Power reduction	Left	10	157	5785	11.18	12.0	1.21	0.06	0.07
	802.11a	Power reduction	Right	10	157	5785	11.18	12.0	1.21	0.11	0.13
	802.11a	Power reduction	Top	10	157	5785	11.18	12.0	1.21	0.22	0.27
	802.11a	Power reduction	Bottom	10	157	5785	11.18	12.0	1.21	0.09	0.11
Simultaneous transmission(Body 15mm)											

Ant2	802.11a	Power reduction	Front	15	157	5785	11.18	12.0	1.21	0.12	0.14
	802.11a	Power reduction	Back	15	157	5785	11.18	12.0	1.21	0.16	0.19

12.16. BT SAR results

Config	Mode	Power Level	Position	Dist. (mm)	Ch.	Freq. (MHz)	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	1g Meas SAR (W/kg)	1g Scaled SAR (W/kg)
Head											
Ant2	BT	original Power	Left Cheek	0	39	2441	12.26	14.0	1.49	0.18	0.26
	BT	original Power	Left Tilt	0	39	2441	12.26	14.0	1.49	0.15	0.22
	BT	original Power	Right Cheek	0	39	2441	12.26	14.0	1.49	0.07	0.10
	BT	original Power	Right Tilt	0	39	2441	12.26	14.0	1.49	0.09	0.13
	BT	original Power	Front	10	39	2441	12.26	14.0	1.49	0.04	0.06
	BT	original Power	Back	10	39	2441	12.26	14.0	1.49	0.06	0.08
	BT	original Power	Left	10	39	2441	12.26	14.0	1.49	0.04	0.07
	BT	original Power	Right	10	39	2441	12.26	14.0	1.49	0.05	0.07
	BT	original Power	Top	10	39	2441	12.26	14.0	1.49	0.05	0.08
	BT	original Power	Bottom	10	39	2441	12.26	14.0	1.49	0.01	0.01
	BT	original Power	Front	15	39	2441	12.26	14.0	1.49	0.01	0.02
	BT	original Power	Back	15	39	2441	12.26	14.0	1.49	0.02	0.03

Config	Mode	Power Level	Position	Dist. (mm)	Ch.	Freq. (MHz)	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	10g Meas SAR (W/kg)	10g Scaled SAR (W/kg)
Ant1	BT	original Power	Front	0	39	2441	12.26	14.0	1.49	0.16	0.24
	BT	original Power	Back	0	39	2441	12.26	14.0	1.49	0.18	0.27
	BT	original Power	Left	0	39	2441	12.26	14.0	1.49	0.02	0.03
	BT	original Power	Right	0	39	2441	12.26	14.0	1.49	0.14	0.21
	BT	original Power	Top	0	39	2441	12.26	14.0	1.49	0.19	0.28
	BT	original Power	Bottom	0	39	2441	12.26	14.0	1.49	0.01	0.01
	BT	original Power	Top	0	0	2402	12.13	14.0	1.54	0.11	0.17
	BT	original Power	Top	0	78	2480	12.21	14.0	1.51	0.13	0.20

12.17. Repeated SAR results

Remark:

1. Per KDB 865664 D01v01r04, for each frequency band, repeated SAR measurement is required only when the measured SAR is ⩾0.8W/kg.

2. Per KDB 865664 D01v01r04, if the ratio among the repeated measurement is ⩽ 1.2 and the measured SAR<1.45W/kg, only one repeated measurement is required.

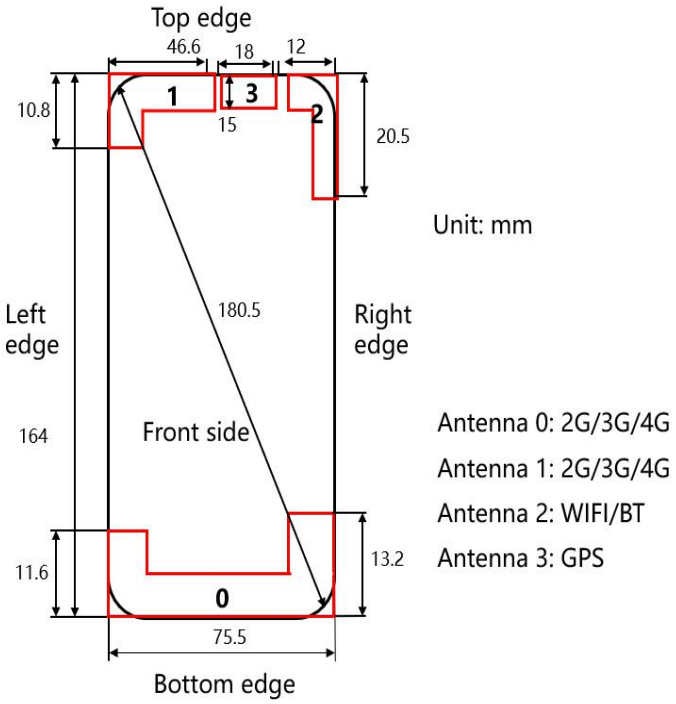
3. The ratio is the difference in percentage between original and repeated measured SAR.

4. All measurement SAR result is scaled-up to account for tune-up tolerance and is compliant.

Band	Mode	Test Position	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Scaling Factor	Measured SAR (W/kg)	Reported SAR (W/kg)
/	/	/	/	/	/	/	/	/	/

13. EXPOSURE POSITIONS CONSIDERATION

13.1. Multiple Transmitter Evaluation



The reference plane is the front side

	Distance of the Antenna to the EUT sufaceledge					
Antennas	Front	Back	Left	Right	Top	Bottom
ANT0	≤25mm	≤25mm	≤25mm	≤25mm	>25mm	≤25mm
ANT1	≤25mm	≤25mm	≤25mm	>25mm	≤25mm	>25mm
ANT2	≤25mm	≤25mm	>25mm	≤25mm	≤25mm	>25mm

	Positions for SAR tests; Hotspot mode					
Antennas	Front	Back	Left	Right	Top	Bottom
ANT0	Yes	Yes	Yes	Yes	No	Yes
ANT1	Yes	Yes	Yes	No	Yes	No
ANT2	Yes	Yes	No	Yes	Yes	No

13.2. Simultaneous Transmission Possibilities

The Simultaneous Transmission Possibilities of this device are as below:

No.	Configuration	Head	Body
1	WIFI5G+BT	Yes	Yes
2.	WWAN+WIFI2.4G	Yes	Yes
3.	WWAN+BT	Yes	Yes
4.	WWAN+WIFI5G	Yes	Yes
5.	WWAN+WIFI5G+BT	Yes	Yes

Table 7: Simultaneous Transmission Possibilities

Note:

1) Bluetooth share the same Tx antenna and can't transmit simultaneously.
2) 2G&3G&4Gcan't transmit simultaneously.
3) Held to ear configurations are not applicable to Bluetooth and therefore were not considered for simultaneous transmission.

13.3. SAR Summation Scenario

Test Position		Left head touched	Left head tilted 15°	Righthead touched	Right head tilted 15°
	GSM850	0.45	0.40	0.62	0.54
	PCS1900	0.41	0.51	0.59	0.68
	WCDMA Band V	0.46	0.40	0.56	0.50
	LTE Band 5	0.48	0.40	0.56	0.50
	LTE Band 7	0.32	0.29	0.68	0.68
	LTE Band 38	0.33	0.25	0.66	0.57
	LTE Band 41	0.22	0.19	0.55	0.44
	WIFI2.4G	0.26	0.23	0.11	0.15
	WIFI 5G	0.32	0.36	0.30	0.36
	BT	0.26	0.22	0.10	0.13
Σ1g SAR(W/kg)		1.06	1.09	1.08	1.17

Conclusion:

1) Simultaneous Transmission SAR evaluation is not required for WiFi and UMTS&GSM&LTE&NSA, because the sum of the 1g SAR is 1.17W/kg <1.6 W/kg.

2) One way of determining the threshold power level available to the secondary transmitter(Pavailable) is to calculate it from the measured peak spatial-average SAR of the primarytransmitter (SAR1) according to the equation:

Test Position		Front Side 10mm	Back Side 10mm	Left Side 10mm	Right Side 10mm	Top Side 10mm	Bottom Side 10mm	Front Side 15mm	Back Side 15mm
	GSM850	0.16	0.30	0.12	0.18	0.18	0.20	0.16	0.21
	PCS1900	0.49	0.72	0.16	0.07	0.75	0.65	0.24	0.34
	WCDMA Band V	0.19	0.34	0.15	0.15	0.19	0.30	0.18	0.23
	LTE Band 5	0.21	0.39	0.16	0.20	0.17	0.24	0.19	0.24
	LTE Band 7	0.34	0.87	0.61	0.10	0.62	1.02	0.18	0.44
	LTE Band 38	0.37	0.66	0.52	0.09	0.37	0.81	0.18	0.34
	LTE Band 41	0.20	0.41	0.31	0.05	0.19	0.40	0.19	0.36
	WIFI2.4G	0.14	0.21	0.01	0.16	0.21	0.03	0.08	0.10
	WIFI 5G	0.08	0.30	0.08	0.13	0.27	0.11	0.14	0.19
	BT	0.06	0.08	0.07	0.07	0.08	0.01	0.02	0.03
Σ1g SAR(W/kg)		0.63	1.25	0.76	0.40	1.10	1.14	0.40	0.66

Conclusion:

1) Simultaneous Transmission SAR evaluation is not required for WiFi and UMTS&GSM&LTE&NSA, because the sum of the 1g SAR is 1.25W/kg <1.6 W/kg.

2) One way of determining the threshold power level available to the secondary transmitter(Pavailable) is to calculate it from the measured peak spatial-average SAR of the primarytransmitter (SAR1) according to the equation:

Test Position		Front Side 0mm	Back Side 0mm	Left Side 0mm	Right Side 0mm	Top Side 0mm	Bottom Side 0mm
	GSM850	N/A	N/A	N/A	N/A	N/A	N/A
	PCS1900	N/A	N/A	N/A	N/A	N/A	N/A
	WCDMA Band V	N/A	N/A	N/A	N/A	N/A	N/A
	LTE Band 5	N/A	N/A	N/A	N/A	N/A	N/A
	LTE Band 7	N/A	N/A	N/A	N/A	N/A	N/A
	LTE Band 38	N/A	N/A	N/A	N/A	N/A	N/A
	LTE Band 41	N/A	N/A	N/A	N/A	N/A	N/A
	WIFI2.4G	N/A	N/A	N/A	N/A	N/A	N/A
	WIFI 5G	0.43	1.48	0.03	1.07	1.11	0.04
	BT	0.24	0.27	0.03	0.21	0.28	0.01
Σ1g SAR(W/kg)		0.67	1.75	0.06	1.28	1.39	0.05

Conclusion:

1) Simultaneous Transmission SAR evaluation is not required for WiFi and UMTS&GSM&LTE&NSA, because the sum of the 1g SAR is 1.75W/kg <4.0 W/kg.

2) One way of determining the threshold power level available to the secondary transmitter(Pavailable) is to calculate it from the measured peak spatial-average SAR of the primarytransmitter (SAR1) according to the equation:

13.4. Simultaneous Transmission Conclusion

The above numeral summed SAR results and SPLSR analysis is sufficient to determine that simultaneous cases will not exceed the SAR limit and therefore simultaneous transmission SAR with Volume Scan is not required per KDB 447498 D01v06

Appendix A. System Check Plots

(Pls see Appendix A)

Appendix B. MEASUREMENT SCANS

(Pls see Appendix B)

AppendixC RELEVANT PAGES FROM PROBE CALIBRATION REPORT(S)

(Pls see Appendix C)

Appendix D. RELEVANT PAGES FROM DAE&DIPOLE VALIDATION KIT REPORT(S)

(Pls see Appendix D)

Appendix E. Photographs of the Test Set-Up

(Pls see Appendix E)

APPENDIX I Product Equality Declaration

(Pls see Appendix I)