

Variant FCC SAR Test Report

Report No. : SA180227C27F
Applicant : Getac Technology Corporation.
Address : 5F., Building A, No. 209, Sec.1, Nangang Rd., Nangang Dist., Taipei City 11568, Taiwan, R.O.C.
Product : Tablet
FCC ID : QYLEM7511K / QYL8265NGK
Brand : Getac
Model No. : K120
Standards : FCC 47 CFR Part 2 (2.1093), IEEE C95.1:1992, IEEE Std 1528:2013
KDB 865664 D01 v01r04, KDB 865664 D02 v01r02, KDB 248227 D01 v02r02
KDB 447498 D01 v06, KDB 616217 D04 v01r02, KDB 941225 D01 v03r01
KDB 941225 D05 v02r05, KDB 941225 D05A v01r02
Sample Received Date : Mar. 25, 2019
Date of Testing : May 25, 2019
Lab Address : No. 47-2, 14th Ling, Chia Pau Vil., Lin Kou Dist., New Taipei City, Taiwan, R.O.C.
Test Location : No. 19, Hwa Ya 2nd Rd, Wen Hwa Vil, Kwei Shan Dist., Taoyuan City 33383, Taiwan (R.O.C)

CERTIFICATION: The above equipment have been tested by **Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch – Lin Kou Laboratories**, and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's SAR characteristics under the conditions specified in this report. It should not be reproduced except in full, without the written approval of our laboratory. The client should not use it to claim product certification, approval, or endorsement by TAF or any government agencies.

This report is issued as a supplementary report to BV CPS report no.: SA180227C27D. The difference compared with original report is adding CA band test, but EUT is same.

Prepared By :



Gina Liu / Specialist

Approved By :



Gordon Lin / Assistant Manager



FCC Accredited No.: TW0003

This report is for your exclusive use. Any copying or replication of this report to or for any other person or entity, or use of our name or trademark, is permitted only with our prior written permission. This report sets forth our findings solely with respect to the test samples identified herein. The results set forth in this report are not indicative or representative of the quality or characteristics of the lot from which a test sample was taken or any similar or identical product unless specifically and expressly noted. Our report includes all of the tests requested by you and the results thereof based upon the information that you provided to us. You have 60 days from date of issuance of this report to notify us of any material error or omission caused by our negligence, provided, however, that such notice shall be in writing and shall specifically address the issue you wish to raise. A failure to raise such issue within the prescribed time shall constitute your unqualified acceptance of the completeness of this report, the tests conducted and the correctness of the report contents. Unless specific mention, the uncertainty of measurement has been explicitly taken into account to declare the compliance or non-compliance to the specification.

Table of Contents

Release Control Record	3
1. Summary of Maximum SAR Value	4
2. Description of Equipment Under Test	5
3. SAR Measurement System	6
3.1 Definition of Specific Absorption Rate (SAR)	6
3.2 SPEAG DASY52 System	6
Robot 7	
Probes 8	
Data Acquisition Electronics (DAE)	8
Phantoms	9
Device Holder	10
System Validation Dipoles	10
Tissue Simulating Liquids	11
3.3 SAR System Verification	13
3.4 SAR Measurement Procedure	14
Area & Zoom Scan Procedure	14
Volume Scan Procedure	14
Power Drift Monitoring	15
Spatial Peak SAR Evaluation	15
SAR Averaged Methods	15
4. SAR Measurement Evaluation	16
4.1 EUT Configuration and Setting	16
4.2 EUT Testing Position	27
4.2.1 Body Exposure Conditions	27
4.3 Tissue Verification	29
4.4 System Validation	29
4.5 System Verification	29
4.6 Maximum Output Power	30
4.6.1 Maximum Target Conducted Power	30
4.6.2 Measured Conducted Power Result	33
4.7 SAR Testing Results	52
4.7.1 SAR Test Reduction Considerations	52
4.7.2 SAR Results for Body Exposure Condition	55
4.7.3 Simultaneous Multi-band Transmission Evaluation	55
5. Calibration of Test Equipment	56
6. Measurement Uncertainty	57
7. Information of the Testing Laboratories	57
Appendix A. SAR Plots of System Verification	
Appendix B. SAR Plots of SAR Measurement	
Appendix C. Calibration Certificate for Probe and Dipole	
Appendix D. Photographs of EUT and Setup	

Release Control Record

Report No.	Reason for Change	Date Issued
SA180227C27F	Initial release	Jun. 11, 2019

FCC SAR Test Report

1. Summary of Maximum SAR Value

Equipment Class	Mode	Highest SAR-1g Body (W/kg)	
		Laptop PC Mode	Tablet PC Mode
PCB	LTE 7	N/A	0.78
	LTE 41	N/A	0.49

Note:

1. The SAR criteria (**Head & Body: SAR-1g 1.6 W/kg, and Extremity: SAR-10g 4.0 W/kg**) for general population / uncontrolled exposure is specified in FCC 47 CFR part 2 (2.1093) and ANSI/IEEE C95.1-1992.

FCC SAR Test Report

2. Description of Equipment Under Test

EUT Type	Tablet
FCC ID	QYLEM7511K / QYL8265NGK
Brand Name	Getac
Model Name	K120
Tx Frequency Bands (Unit: MHz)	WCDMA Band II : 1852.4 ~ 1907.6 WCDMA Band IV : 1712.4 ~ 1752.6 WCDMA Band V : 826.4 ~ 846.6 LTE Band 2 : 1850.7 ~ 1909.3 (BW: 1.4M, 3M, 5M, 10M, 15M, 20M) LTE Band 4 : 1710.7 ~ 1754.3 (BW: 1.4M, 3M, 5M, 10M, 15M, 20M) LTE Band 5 : 824.7 ~ 848.3 (BW: 1.4M, 3M, 5M, 10M) LTE Band 7 : 2502.5 ~ 2567.5 (BW: 5M, 10M, 15M, 20M) LTE Band 12 : 699.7 ~ 715.3 (BW: 1.4M, 3M, 5M, 10M) LTE Band 13 : 779.5 ~ 784.5 (BW: 5M, 10M) LTE Band 14 : 790.5 ~ 795.5 (BW: 5M, 10M) LTE Band 26 : 814.7 ~ 848.3 (BW: 1.4M, 3M, 5M, 10M, 15M) LTE Band 41 : 2498.5 ~ 2687.5 (BW: 5M, 10M, 15M, 20M) LTE Band 66 : 1710.7 ~ 1779.3 (BW: 1.4M, 3M, 5M, 10M, 15M, 20M) WLAN : 2412 ~ 2462, 5180 ~ 5240, 5260 ~ 5320, 5500 ~ 5700, 5745 ~ 5825 Bluetooth : 2402 ~ 2480
Uplink Modulations	WCDMA : QPSK LTE : QPSK, 16QAM, 64QAM 802.11b : DSSS 802.11a/g/n/ac : OFDM Bluetooth : GFSK, $\pi/4$ -DQPSK, 8-DPSK
Maximum Tune-up Conducted Power (Unit: dBm)	Please refer to section 4.6.1 of this report
Antenna Type	PIFA Antenna
EUT Stage	Identical Prototype

Note:

1. This report is issued as a supplementary report to BV CPS report no.: SA180227C27D. The difference compared with original report is adding LTE CA band test, and EUT is the same. The SAR testing above was verified based on the CA band of original report.
2. The above EUT information is declared by manufacturer and for more detailed features description please refers to the manufacturer's specifications or User's Manual.

List of Accessory:

Battery 1	Brand Name	Getac
	Model Name	BP3S1P2100S-01
	Power Rating	11.1Vdc, 2100mAh
	Type	Li-ion
BT/WLAN Module	Brand Name	Intel
	Model Name	8265NGW
WWLAN Module	Brand Name	Sierra
	Model Name	EM7511

3. SAR Measurement System

3.1 Definition of Specific Absorption Rate (SAR)

SAR is related to the rate at which energy is absorbed per unit mass in an object exposed to a radio field. The SAR distribution in a biological body is complicated and is usually carried out by experimental techniques or numerical modeling. The standard recommends limits for two tiers of groups, occupational/controlled and general population/uncontrolled, based on a person's awareness and ability to exercise control over his or her exposure. In general, occupational/controlled exposure limits are higher than the limits for general population/uncontrolled.

The SAR definition is the time derivative (rate) of the incremental energy (dW) absorbed by (dissipated in) an incremental mass (dm) contained in a volume element (dv) of a given density (ρ). The equation description is as below:

$$SAR = \frac{d}{dt} \left(\frac{dW}{dm} \right) = \frac{d}{dt} \left(\frac{dW}{\rho dv} \right)$$

SAR is expressed in units of Watts per kilogram (W/kg)

SAR measurement can be related to the electrical field in the tissue by

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

Where: σ is the conductivity of the tissue, ρ is the mass density of the tissue and E is the RMS electrical field strength.

3.2 SPEAG DASY52 System

DASY52 system consists of high precision robot, probe alignment sensor, phantom, robot controller, controlled measurement server and near-field probe. The robot includes six axes that can move to the precision position of the DASY52 software defined. The DASY52 software can define the area that is detected by the probe. The robot is connected to controlled box. Controlled measurement server is connected to the controlled robot box. The DAE includes amplifier, signal multiplexing, AD converter, offset measurement and surface detection. It is connected to the Electro-optical coupler (ECO). The ECO performs the conversion from the optical into digital electric signal of the DAE and transfers data to the PC.

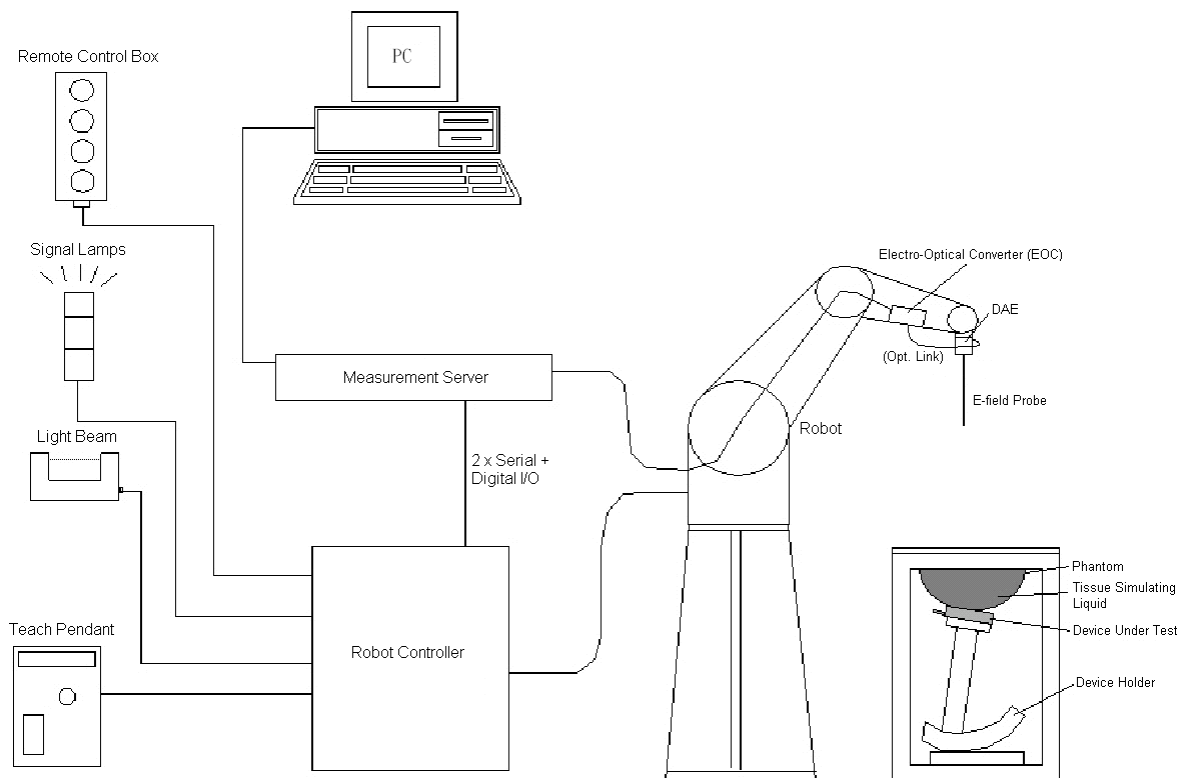


Fig-3.1 SPEAG DASY52 System Setup

Robot

The DASY52 systems use the high precision robots from Stäubli SA (France). For the 6-axis controller system, the robot controller version of CS8c from Stäubli is used. The Stäubli robot series have many features that are important for our application:

- High precision (repeatability ± 0.035 mm)
- High reliability (industrial design)
- Jerk-free straight movements
- Low ELF interference (the closed metallic construction shields against motor control fields)



Fig-3.2 SPEAG DASY52 System

FCC SAR Test Report

Probes

The SAR measurement is conducted with the dosimetric probe. The probe is specially designed and calibrated for use in liquid with high permittivity. The dosimetric probe has special calibration in liquid at different frequency.

Model	EX3DV4	
Construction	Symmetrical design with triangular core. Built-in shielding against static charges. PEEK enclosure material (resistant to organic solvents, e.g., DGBE).	
Frequency	10 MHz to 6 GHz Linearity: ± 0.2 dB	
Directivity	± 0.3 dB in HSL (rotation around probe axis) ± 0.5 dB in tissue material (rotation normal to probe axis)	
Dynamic Range	10 μ W/g to 100 mW/g Linearity: ± 0.2 dB (noise: typically < 1 μ W/g)	
Dimensions	Overall length: 337 mm (Tip: 20 mm) Tip diameter: 2.5 mm (Body: 12 mm) Typical distance from probe tip to dipole centers: 1 mm	

Model	ES3DV3	
Construction	Symmetrical design with triangular core. Interleaved sensors. Built-in shielding against static charges. PEEK enclosure material (resistant to organic solvents, e.g., DGBE).	
Frequency	10 MHz to 4 GHz Linearity: ± 0.2 dB	
Directivity	± 0.2 dB in HSL (rotation around probe axis) ± 0.3 dB in tissue material (rotation normal to probe axis)	
Dynamic Range	5 μ W/g to 100 mW/g Linearity: ± 0.2 dB	
Dimensions	Overall length: 337 mm (Tip: 20 mm) Tip diameter: 3.9 mm (Body: 12 mm) Distance from probe tip to dipole centers: 2.0 mm	

Model	ET3DV6	
Construction	Symmetrical design with triangular core Built-in optical fiber for surface detection system. Built-in shielding against static charges. PEEK enclosure material (resistant to organic solvents, e.g., DGBE)	
Frequency	10 MHz to 2.3 GHz; Linearity: ± 0.2 dB	
Directivity	± 0.2 dB in TSL (rotation around probe axis) ± 0.4 dB in TSL (rotation normal to probe axis)	
Dynamic Range	5 μ W/g to 100 mW/g; Linearity: ± 0.2 dB	
Dimensions	Overall length: 337 mm (Tip: 16 mm) Tip diameter: 6.8 mm (Body: 12 mm) Distance from probe tip to dipole centers: 2.7 mm	

Data Acquisition Electronics (DAE)

Model	DAE3, DAE4	
Construction	Signal amplifier, multiplexer, A/D converter and control logic. Serial optical link for communication with DASY embedded system (fully remote controlled). Two step probe touch detector for mechanical surface detection and emergency robot stop.	
Measurement Range	-100 to +300 mV (16 bit resolution and two range settings: 4mV, 400mV)	
Input Offset Voltage	$< 5\mu$ V (with auto zero)	
Input Bias Current	< 50 fA	
Dimensions	60 x 60 x 68 mm	

FCC SAR Test Report

Phantoms

Model	Twin SAM	
Construction	The shell corresponds to the specifications of the Specific Anthropomorphic Mannequin (SAM) phantom defined in IEEE 1528 and IEC 62209-1. It enables the dosimetric evaluation of left and right hand phone usage as well as body mounted usage at the flat phantom region. A cover prevents evaporation of the liquid. Reference markings on the phantom allow the complete setup of all predefined phantom positions and measurement grids by teaching three points with the robot.	
Material	Vinylester, glass fiber reinforced (VE-GF)	
Shell Thickness	2 ± 0.2 mm (6 ± 0.2 mm at ear point)	
Dimensions	Length: 1000 mm Width: 500 mm Height: adjustable feet	
Filling Volume	approx. 25 liters	

Model	ELI	
Construction	Phantom for compliance testing of handheld and body-mounted wireless devices in the frequency range of 30 MHz to 6 GHz. ELI is fully compatible with the IEC 62209-2 standard and all known tissue simulating liquids. ELI has been optimized regarding its performance and can be integrated into our standard phantom tables. A cover prevents evaporation of the liquid. Reference markings on the phantom allow installation of the complete setup, including all predefined phantom positions and measurement grids, by teaching three points. The phantom is compatible with all SPEAG dosimetric probes and dipoles.	
Material	Vinylester, glass fiber reinforced (VE-GF)	
Shell Thickness	2.0 ± 0.2 mm (bottom plate)	
Dimensions	Major axis: 600 mm Minor axis: 400 mm	
Filling Volume	approx. 30 liters	

FCC SAR Test Report

Device Holder

Model	Mounting Device	
Construction	In combination with the Twin SAM Phantom or ELI4, the Mounting Device enables the rotation of the mounted transmitter device in spherical coordinates. Rotation point is the ear opening point. Transmitter devices can be easily and accurately positioned according to IEC, IEEE, FCC or other specifications. The device holder can be locked for positioning at different phantom sections (left head, right head, flat).	
Material	POM	

Model	Laptop Extensions Kit	
Construction	Simple but effective and easy-to-use extension for Mounting Device that facilitates the testing of larger devices according to IEC 62209-2 (e.g., laptops, cameras, etc.). It is lightweight and fits easily on the upper part of the Mounting Device in place of the phone positioner.	
Material	POM, Acrylic glass, Foam	

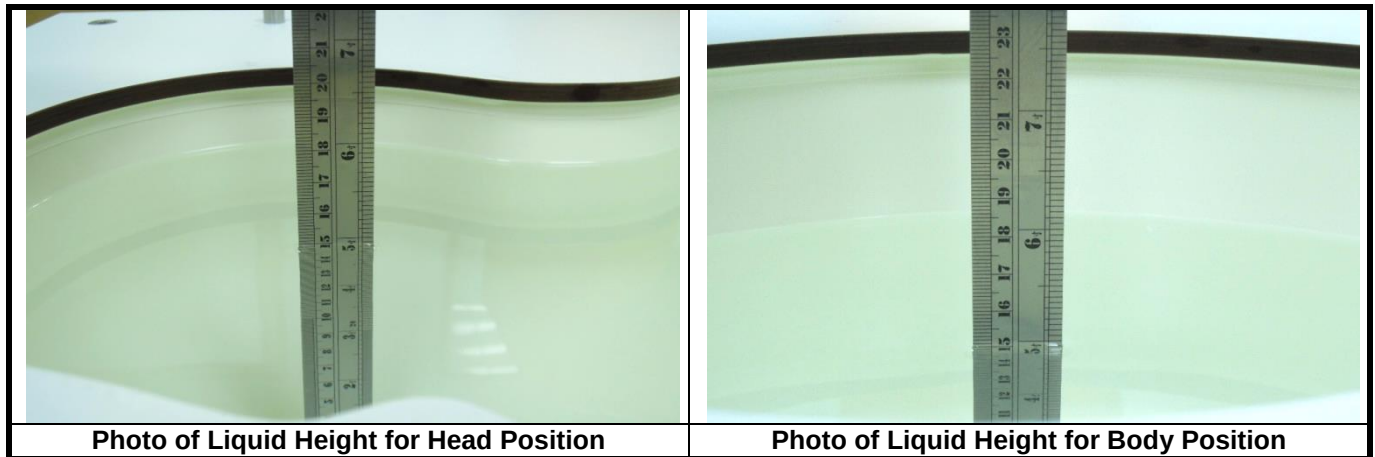
System Validation Dipoles

Model	D-Serial	
Construction	Symmetrical dipole with 1/4 balun. Enables measurement of feed point impedance with NWA. Matched for use near flat phantoms filled with tissue simulating solutions.	
Frequency	750 MHz to 5800 MHz	
Return Loss	> 20 dB	
Power Capability	> 100 W (f < 1GHz), > 40 W (f > 1GHz)	

FCC SAR Test Report

Tissue Simulating Liquids

For SAR measurement of the field distribution inside the phantom, the phantom must be filled with homogeneous tissue simulating liquid to a depth of at least 15 cm. For head SAR testing, the liquid height from the ear reference point (ERP) of the phantom to the liquid top surface is larger than 15 cm. For body SAR testing, the liquid height from the center of the flat phantom to the liquid top surface is larger than 15 cm. The nominal dielectric values of the tissue simulating liquids in the phantom and the tolerance of 5% are listed in Table-3.1.



The dielectric properties of the head tissue simulating liquids are defined in IEEE 1528, and KDB 865664 D01 Appendix A. For the body tissue simulating liquids, the dielectric properties are defined in KDB 865664 D01 Appendix A. The dielectric properties of the tissue simulating liquids were verified prior to the SAR evaluation using a dielectric assessment kit and a network analyzer.

Table-3.1 Targets of Tissue Simulating Liquid

Frequency (MHz)	Target Permittivity	Range of $\pm 5\%$	Target Conductivity	Range of $\pm 5\%$
For Head				
750	41.9	39.8 ~ 44.0	0.89	0.85 ~ 0.93
835	41.5	39.4 ~ 43.6	0.90	0.86 ~ 0.95
900	41.5	39.4 ~ 43.6	0.97	0.92 ~ 1.02
1450	40.5	38.5 ~ 42.5	1.20	1.14 ~ 1.26
1640	40.3	38.3 ~ 42.3	1.29	1.23 ~ 1.35
1750	40.1	38.1 ~ 42.1	1.37	1.30 ~ 1.44
1800	40.0	38.0 ~ 42.0	1.40	1.33 ~ 1.47
1900	40.0	38.0 ~ 42.0	1.40	1.33 ~ 1.47
2000	40.0	38.0 ~ 42.0	1.40	1.33 ~ 1.47
2300	39.5	37.5 ~ 41.5	1.67	1.59 ~ 1.75
2450	39.2	37.2 ~ 41.2	1.80	1.71 ~ 1.89
2600	39.0	37.1 ~ 41.0	1.96	1.86 ~ 2.06
3500	37.9	36.0 ~ 39.8	2.91	2.76 ~ 3.06
5200	36.0	34.2 ~ 37.8	4.66	4.43 ~ 4.89
5300	35.9	34.1 ~ 37.7	4.76	4.52 ~ 5.00
5500	35.6	33.8 ~ 37.4	4.96	4.71 ~ 5.21
5600	35.5	33.7 ~ 37.3	5.07	4.82 ~ 5.32
5800	35.3	33.5 ~ 37.1	5.27	5.01 ~ 5.53

FCC SAR Test Report

The following table gives the recipes for tissue simulating liquids.

Table-3.2 Recipes of Tissue Simulating Liquid

Tissue Type	Bactericide	DGBE	HEC	NaCl	Sucrose	Triton X-100	Water	Diethylene Glycol Mono-hexylether
H750	0.2	-	0.2	1.5	56.0	-	42.1	-
H835	0.2	-	0.2	1.5	57.0	-	41.1	-
H900	0.2	-	0.2	1.4	58.0	-	40.2	-
H1450	-	43.3	-	0.6	-	-	56.1	-
H1640	-	45.8	-	0.5	-	-	53.7	-
H1750	-	47.0	-	0.4	-	-	52.6	-
H1800	-	44.5	-	0.3	-	-	55.2	-
H1900	-	44.5	-	0.2	-	-	55.3	-
H2000	-	44.5	-	0.1	-	-	55.4	-
H2300	-	44.9	-	0.1	-	-	55.0	-
H2450	-	45.0	-	0.1	-	-	54.9	-
H2600	-	45.1	-	0.1	-	-	54.8	-
H3500	-	8.0	-	0.2	-	20.0	71.8	-
H5G	-	-	-	-	-	17.2	65.5	17.3
B750	0.2	-	0.2	0.8	48.8	-	50.0	-
B835	0.2	-	0.2	0.9	48.5	-	50.2	-
B900	0.2	-	0.2	0.9	48.2	-	50.5	-
B1450	-	34.0	-	0.3	-	-	65.7	-
B1640	-	32.5	-	0.3	-	-	67.2	-
B1750	-	31.0	-	0.2	-	-	68.8	-
B1800	-	29.5	-	0.4	-	-	70.1	-
B1900	-	29.5	-	0.3	-	-	70.2	-
B2000	-	30.0	-	0.2	-	-	69.8	-
B2300	-	31.0	-	0.1	-	-	68.9	-
B2450	-	31.4	-	0.1	-	-	68.5	-
B2600	-	31.8	-	0.1	-	-	68.1	-
B3500	-	28.8	-	0.1	-	-	71.1	-
B5G	-	-	-	-	-	10.7	78.6	10.7

3.3 SAR System Verification

The system check verifies that the system operates within its specifications. It is performed daily or before every SAR measurement. The system check uses normal SAR measurements in the flat section of the phantom with a matched dipole at a specified distance. The system verification setup is shown as below.

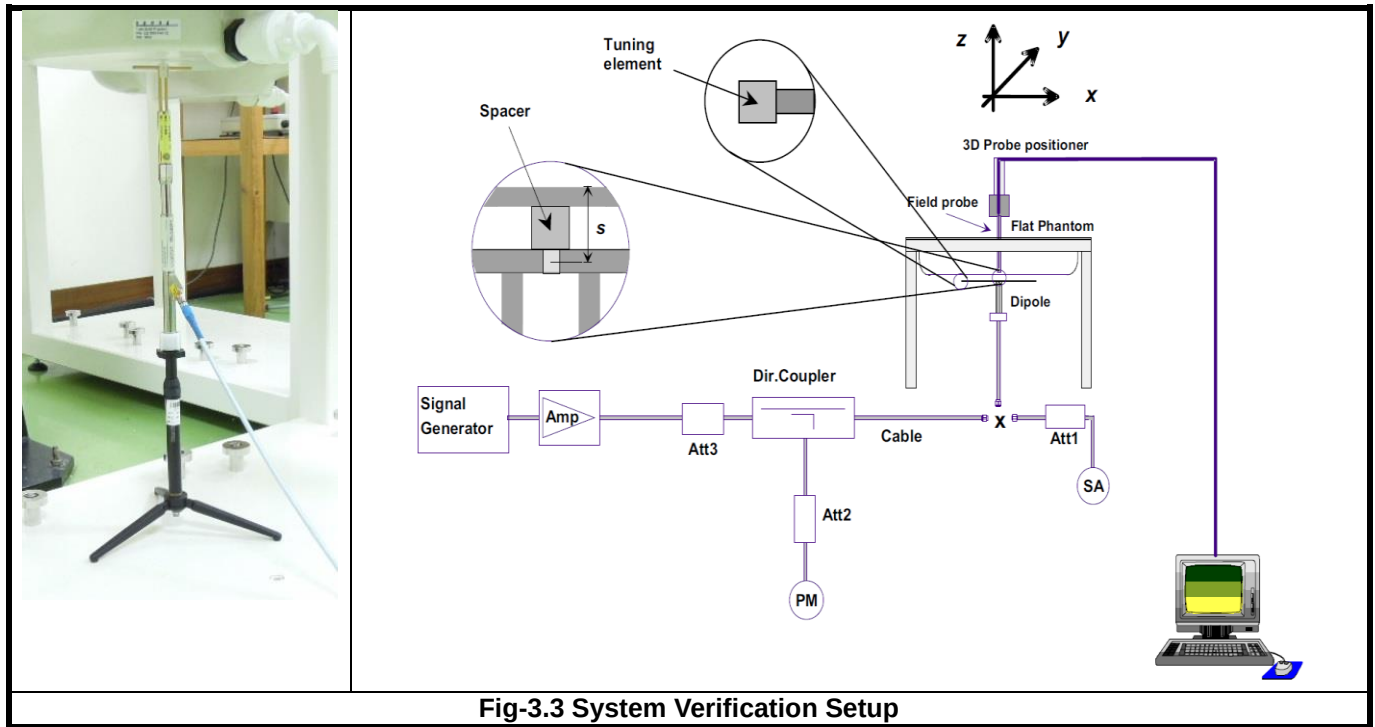


Fig-3.3 System Verification Setup

The validation dipole is placed beneath the flat phantom with the specific spacer in place. The distance spacer is touch the phantom surface with a light pressure at the reference marking and be oriented parallel to the long side of the phantom. The spectrum analyzer measures the forward power at the location of the system check dipole connector. The signal generator is adjusted for the desired forward power (250 mW is used for 700 MHz to 3 GHz, 100 mW is used for 3.5 GHz to 6 GHz) at the dipole connector and the power meter is read at that level. After connecting the cable to the dipole, the signal generator is readjusted for the same reading at power meter.

After system check testing, the SAR result will be normalized to 1W forward input power and compared with the reference SAR value derived from validation dipole certificate report. The deviation of system check should be within 10 %.

3.4 SAR Measurement Procedure

According to the SAR test standard, the recommended procedure for assessing the peak spatial-average SAR value consists of the following steps:

- Power reference measurement
- Area scan
- Zoom scan
- Power drift measurement

The SAR measurement procedures for each of test conditions are as follows:

- Make EUT to transmit maximum output power
- Measure conducted output power through RF cable
- Place the EUT in the specific position of phantom
- Perform SAR testing steps on the DASY system
- Record the SAR value

Area & Zoom Scan Procedure

First Area Scan is used to locate the approximate location(s) of the local peak SAR value(s). The measurement grid within an Area Scan is defined by the grid extent, grid step size and grid offset. Next, in order to determine the EM field distribution in a three-dimensional spatial extension, Zoom Scan is required. The Zoom Scan is performed around the highest E-field value to determine the averaged SAR-distribution over 10 g. According to KDB 865664 D01, the resolution for Area and Zoom scan is specified in the table below.

Items	<= 2 GHz	2-3 GHz	3-4 GHz	4-5 GHz	5-6 GHz
Area Scan ($\Delta x, \Delta y$)	<= 15 mm	<= 12 mm	<= 12 mm	<= 10 mm	<= 10 mm
Zoom Scan ($\Delta x, \Delta y$)	<= 8 mm	<= 5 mm	<= 5 mm	<= 4 mm	<= 4 mm
Zoom Scan (Δz)	<= 5 mm	<= 5 mm	<= 4 mm	<= 3 mm	<= 2 mm
Zoom Scan Volume	>= 30 mm	>= 30 mm	>= 28 mm	>= 25 mm	>= 22 mm

Note:

When zoom scan is required and report SAR is <= 1.4 W/kg, the zoom scan resolution of $\Delta x / \Delta y$ (2-3GHz: <= 8 mm, 3-4GHz: <= 7 mm, 4-6GHz: <= 5 mm) may be applied.

Volume Scan Procedure

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

FCC SAR Test Report

Power Drift Monitoring

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

Spatial Peak SAR Evaluation

The procedure for spatial peak SAR evaluation has been implemented according to the test standard. It can be conducted for 1g and 10g, as well as for user-specific masses. The DASY software includes all numerical procedures necessary to evaluate the spatial peak SAR value.

The base for the evaluation is a "cube" measurement. The measured volume must include the 1g and 10g cubes with the highest averaged SAR values. For that purpose, the center of the measured volume is aligned to the interpolated peak SAR value of a previously performed area scan.

The entire evaluation of the spatial peak values is performed within the post-processing engine (SEMCAD). The system always gives the maximum values for the 1g and 10g cubes. The algorithm to find the cube with highest averaged SAR is divided into the following stages:

- (a) Extraction of the measured data (grid and values) from the Zoom Scan
- (b) Calculation of the SAR value at every measurement point based on all stored data (A/D values and measurement parameters)
- (c) Generation of a high-resolution mesh within the measured volume
- (d) Interpolation of all measured values from the measurement grid to the high-resolution grid
- (e) Extrapolation of the entire 3-D field distribution to the phantom surface over the distance from sensor to surface
- (f) Calculation of the averaged SAR within masses of 1g and 10g

SAR Averaged Methods

In DASY, the interpolation and extrapolation are both based on the modified Quadratic Shepard's method. The interpolation scheme combines a least-square fitted function method and a weighted average method which are the two basic types of computational interpolation and approximation.

Extrapolation routines are used to obtain SAR values between the lowest measurement points and the inner phantom surface. The extrapolation distance is determined by the surface detection distance and the probe sensor offset. The uncertainty increases with the extrapolation distance. To keep the uncertainty within 1% for the 1 g and 10 g cubes, the extrapolation distance should not be larger than 5 mm.

4. SAR Measurement Evaluation

4.1 EUT Configuration and Setting

<Considerations Related to Proximity Sensor>

The device supports WWAN, WLAN, and Bluetooth capabilities. It is designed with a proximity sensor which can trigger/not trigger power reduction for WCDMA and LTE on Top Side of EUT for SAR compliance. Others RF capability (WLAN and Bluetooth) have no power reduction. The power levels for all wireless technologies and the power reduction please refer to section 4.6 of this report.

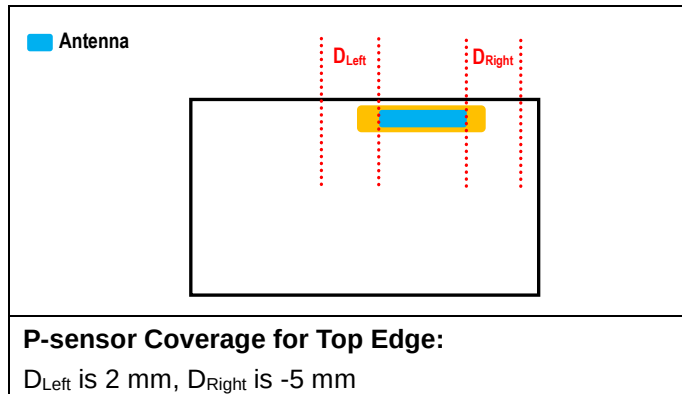
Proximity Sensor Triggering Distances (KDB 616217 D04 §6.2)

The proximity sensor triggering distance was determined per KDB 616217 for rear face and applicable edge. Summary for power verification per distance was tabulated in the below table.

Output Power Verification in dBm for EUT Top Edge											
Distance (mm)	10	11	12	13	14	15	16	17	18	19	20
WCDMA II	19.6	19.9	19.7	19.6	19.9	19.5	22.4	22.2	22.2	22.1	22.1
WCDMA IV	20.8	21.1	21.1	20.7	20.8	21.0	23.8	23.8	23.7	23.6	23.4
LTE 2	19.5	19.5	19.5	19.2	19.7	19.7	22.4	22.2	22.1	22.3	22.3
LTE 4	20.9	21.1	20.7	20.7	20.9	20.7	23.9	23.4	23.5	23.9	23.7
LTE 7	20.4	20.4	20.3	20.5	20.8	20.3	22.4	22.4	22.2	22.3	22.7
LTE 12	21.6	21.7	21.8	21.5	21.8	21.9	23.5	23.4	23.5	23.4	23.5
LTE 66	21.0	21.0	20.7	21.1	21.2	20.9	23.8	23.9	23.6	23.7	23.6

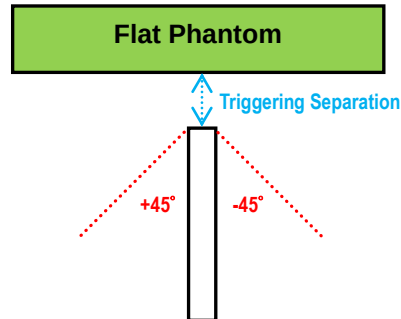
Proximity Sensor Coverage (KDB 616217 D04 §6.3)

The proximity sensor coverage was determined per KDB 616217 for rear face and applicable edge. Summary for proximity sensor active region is illustrated in below.



Proximity Sensor Tilt Angle Influences (KDB 616217 D04 §6.4)

The proximity sensor tilt angle influence was determined per KDB 616217 for applicable edge. Summary for proximity sensor tilt angle influence is shown in below.



Orientation	Separation Distance (mm)	Tilt Angle										
		-45°	-40°	-30°	-20°	-10°	0°	10°	20°	30°	40°	45°
Top Edge	10	On	On	On	On	On	On	On	On	On	On	On

Summary for Proximity Sensor Triggering Test

According to the procedures noticed in KDB 616217 D04, the proximity sensor triggering distance is 15 mm for Top Side. The separation distance of 10 mm determined by the smallest triggering distance on Top Side is used to access the tilt angle influence and the sensor does not release during ± 45 degree. Therefore, the smallest separation distance for tilt angle influence is 10 mm for the Top Side. The conservation triggering distances based on the separation distance for the sensor trigger / not triggered as EUT with power reduction at 0 mm, and EUT without power reduction at 9 mm for Top Side were used to test SAR.

The power reduction is depends on the proximity sensor input. For a steady SAR test, the power reduction was enabled or disabled manually by engineering software during SAR testing.

FCC SAR Test Report

<Connections between EUT and System Simulator>

For WWAN SAR testing, the EUT was linked and controlled by base station emulator. Communication between the EUT and the emulator was established by air link. The distance between the EUT and the communicating antenna of the emulator is larger than 50 cm and the output power radiated from the emulator antenna is at least 30 dB smaller than the output power of EUT. The EUT was set from the emulator to radiate maximum output power during SAR testing.

<Considerations Related to LTE for Setup and Testing>

This device contains LTE transmitter which follows 3GPP standards, is category 3, supports both QPSK and QAM modulations, and supported LTE band and channel bandwidth is listed in below. The output power was tested per 3GPP TS 36.521-1 maximum transmit procedures for both QPSK and QAM modulation. The results please refer to section 4.6 of this report.

EUT Supported LTE Band and Channel Bandwidth						
LTE Band	BW 1.4 MHz	BW 3 MHz	BW 5 MHz	BW 10 MHz	BW 15 MHz	BW 20 MHz
7			V	V	V	V
41			V	V	V	V

The LTE maximum power reduction (MPR) in accordance with 3GPP TS 36.101 is active all times during LTE operation. The allowed MPR for the maximum output power is specified in below.

Modulation	Channel Bandwidth / RB Configurations						LTE MPR Setting (dB)
	BW 1.4 MHz	BW 3 MHz	BW 5 MHz	BW 10 MHz	BW 15 MHz	BW 20 MHz	
QPSK	> 5	> 4	> 8	> 12	> 16	> 18	1
16QAM	<= 5	<= 4	<= 8	<= 12	<= 16	<= 18	1
16QAM	> 5	> 4	> 8	> 12	> 16	> 18	2
64QAM	<= 5	<= 4	<= 8	<= 12	<= 16	<= 18	2
64QAM	> 5	> 4	> 8	> 12	> 16	> 18	3

Note: MPR is according to the standard and implemented in the circuit (mandatory).

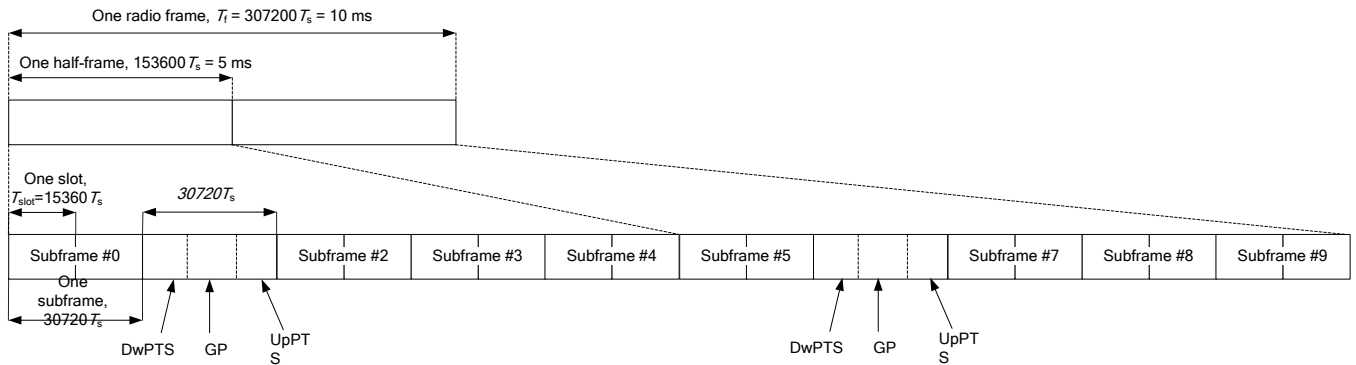
In addition, the device is compliant with additional maximum power reduction (A-MPR) requirements defined in 3GPP TS 36.101 section 6.2.4 that was disabled for all FCC compliance testing.

During LTE SAR testing, the related parameters of operating band, channel bandwidth, uplink channel number, modulation type, and RB was set in base station simulator. When the EUT has registered and communicated to base station simulator, the simulator set to make EUT transmitting the maximum radiated power.

FCC SAR Test Report

TDD-LTE Setup Configurations

According to KDB 941225 D05, SAR testing for TDD-LTE device must be tested using a fixed periodic duty factor according to the highest transmission duty factor implemented for the device and supported by the defined 3GPP TDD-LTE configurations. The TDD-LTE of this device supports frame structure type 2 defined in 3GPP TS 36.211 section 4.2, and the frame structure configuration can be referred to below.



3GPP TS 36.211 Figure 4.2-1: Frame Structure Type 2

Special Subframe Configuration	Normal Cyclic Prefix in Downlink			Extended Cyclic Prefix in Downlink		
	DwPTS	UpPTS		DwPTS	UpPTS	
		Normal Cyclic Prefix in Uplink	Extended Cyclic Prefix in Uplink		Normal Cyclic Prefix in Uplink	Extended Cyclic Prefix in Uplink
0	6592 • Ts	2192 • Ts	2560 • Ts	7680 • Ts	2192 • Ts	2560 • Ts
1	19760 • Ts			20480 • Ts		
2	21952 • Ts			23040 • Ts		
3	24144 • Ts			25600 • Ts		
4	26336 • Ts			7680 • Ts		
5	6592 • Ts	4384 • Ts	5120 • Ts	20480 • Ts	4384 • Ts	5120 • Ts
6	19760 • Ts			23040 • Ts		
7	21952 • Ts			12800 • Ts		
8	24144 • Ts			-	-	-
9	13168 • Ts			-	-	-

3GPP TS 36.211 Table 4.2-1: Configuration of Special Subframe

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

3GPP TS 36.211 Table 4.2-2: Uplink-Downlink Configurations

FCC SAR Test Report

The variety of different TD-LTE uplink-downlink configurations allows a network operator to allocate the network's capacity between uplink and downlink traffic to meet the needs of the network. The uplink duty cycle of these seven configurations can readily be computed and shown in below.

UL-DL Configuration	0	1	2	3	4	5	6
Highest Duty-Cycle	63.33%	43.33%	23.33%	31.67%	21.67%	11.67%	53.33%

LTE Downlink Carrier Aggregation (CA) Setup Configurations

LTE Carrier Aggregation (CA) was defined in 3GPP release 10 and higher. The LTE device in CA mode has one Primary Component Carrier (PCC) and one or more Secondary Component Carriers (SCC). PCC acts as the anchor carrier and can optionally cross-schedule data transmission on SCC. The RRC connection is only handled by one cell, the PCC for downlink and uplink communications. After making a data connection to the PCC, the LTE device adds the SCC on the downlink only. All uplink communications and acknowledgements remain identical to release 8 specifications on the PCC. The combinations of downlink carrier aggregation supported by this device are listed in below.

LTE CA Configurations and Bandwidth Combination Sets defined for Intra-Band Contiguous CA

Downlink CA Configuration	Component carriers in order of increasing carrier frequency			Maximum Aggregated Bandwidth (MHz)	Bandwidth Combination Set
	Channel bandwidths for carrier-1 (MHz)	Channel bandwidths for carrier-2 (MHz)	Channel bandwidths for carrier-3 (MHz)		
CA_2C	5	20		40	0
	10	15, 20			
	15	10, 15, 20			
	20	5, 10, 15, 20			
CA_7B	15	5		20	0
CA_7C	15	15		40	0
	20	20			
	10	20		40	1
	15	15, 20			
	20	10, 15, 20		40	2
	15	10, 15			
CA_41D	20	15, 20		60	0
	10	20	15		
	10	15, 20	20		
	15	20	10, 15		
	15	10, 15, 20	20		
	20	15, 20	10		
CA_66B	20	10, 15, 20	15, 20	20	0
	5	5, 10, 15			
	10	5, 10			
CA_66C	15	5		40	0
	5	20			
	10	15, 20			
	15	10, 15, 20			
	20	5, 10, 15, 20			

FCC SAR Test Report

LTE CA Configurations and Bandwidth Combination Sets defined for Intra-Band Non-Contiguous CA

Downlink CA Configuration	Component Carriers in order of Increasing Carrier Frequency			Maximum Aggregated Bandwidth (MHz)	Bandwidth Combination Set
	Channel Bandwidths for Carrier-1 (MHz)	Channel Bandwidths for Carrier-2 (MHz)	Channel Bandwidths for Carrier-3 (MHz)		
CA_2A-2A	5, 10, 15, 20	5, 10, 15, 20		40	0
CA_4A-4A	5, 10, 15, 20	5, 10, 15, 20		40	0
	5, 10	5, 10		20	1
CA_66A-66B	5, 10, 15, 20	Refer to CA_66B (BCS0)		40	0
	Refer to CA_66B (BCS0)		5, 10, 15, 20		
CA_66A-66C	5, 10, 15, 20	Refer to CA_66C (BCS0)		60	0
	Refer to CA_66C (BCS0)		5, 10, 15, 20		

LTE CA Configurations and Bandwidth Combination Sets defined for Inter-Band CA (Two Bands)

Downlink CA Configuration	LTE Bands	Channel Bandwidths for Carrier (MHz)	Maximum Aggregated Bandwidth (MHz)	Bandwidth Combination Set
CA_2A-4A	2	1.4, 3, 5, 10, 15, 20	40	0
	4	5, 10, 15, 20		
	2	5, 10	20	1
	4	5, 10		
	2	5, 10, 15, 20	40	2
	4	5, 10, 15, 20		
CA_2A-2A-5A	2	Refer to CA_2A-2A (BCS0)	50	0
	5	5, 10		
CA_2A-7A	2	5, 10, 15, 20	40	0
	7	5, 10, 15, 20		
CA_2A-7A-7A	2	5, 10, 15, 20	60	0
	7	Refer to CA_7A-7A (BCS1)		
CA_2A-12A	2	5, 10, 15, 20	30	0
	12	5, 10	30	1
	2	5, 10, 15, 20		
	12	3, 5, 10	20	2
	2	5, 10		
	12	5, 10		
CA_2A-2A-12A	2	Refer to CA_2A-2A (BCS0)	50	0
	12	5, 10		
CA_2A-13A	2	5, 10, 15, 20	30	0
	13	10	20	1
	2	5, 10		
	13	10		
CA_2A-2A-13A	2	Refer to CA_2A-2A (BCS0)	50	0
	13	10		
CA_2A-29A	2	5, 10	20	0
	29	3, 5, 10	20	1
	2	5, 10		
	29	5, 10	30	2
	2	5, 10, 15, 20		
	29	5, 10		
CA_2A-46A	2	5, 10, 15, 20	40	0
	46	20		

FCC SAR Test Report

Downlink CA Configuration	LTE Bands	Channel Bandwidths for Carrier (MHz)	Maximum Aggregated Bandwidth (MHz)	Bandwidth Combination Set
CA_2A-66A	2	1.4, 3, 5, 10, 15, 20	40	0
	66	5, 10, 15, 20		
	2	5, 10	20	1
	66	5, 10		
	2	5, 10, 15, 20	40	2
	66	5, 10, 15, 20		
CA_2A-66B	2	5, 10, 15, 20	40	0
	66	Refer to CA_66B (BCS0)		
CA_2A-66C	2	5, 10, 15, 20	60	0
	66	Refer to CA_66C (BCS0)		
CA_2A-66A-66A	2	5, 10, 15, 20	60	0
	66	Refer to CA_66A-66A (BCS0)		
CA_4A-5A	4	5, 10	20	0
	5	5, 10		
	4	5, 10, 15, 20	30	1
	5	5, 10		
CA_4A-4A-5A	4	Refer to CA_4A-4A (BCS0)	50	0
	5	5, 10		
CA_4A-7A	4	5, 10	30	0
	7	5, 10, 15, 20		
	4	5, 10, 15, 20	40	1
	7	5, 10, 15, 20		
CA_4A-7A-7A	4	5, 10, 15, 20	60	0
	7	Refer to the CA_7A-7A (BCS1)		
CA_4A-12A	4	1.4, 3, 5, 10	20	0
	12	5, 10		
	4	1.4, 3, 5, 10, 15, 20	30	1
	12	5, 10		
	4	5, 10, 15, 20	30	2
	12	3, 5, 10		
	4	5, 10	20	3
	12	5, 10		
	4	5, 10, 15, 20	30	4
	12	5, 10		
CA_4A-4A-12A	4	5, 10, 15	20	5
	12	5		
	4	Refer to CA_4A-4A (BCS0)	50	0
	12	5, 10		
CA_4A-13A	4	5, 10, 15, 20	30	0
	13	10		
	4	5, 10	20	1
	13	10		
CA_4A-4A-13A	4	Refer to CA_4A-4A (BCS0)	50	0
	13	10		
CA_4A-29A	4	5, 10	20	0
	29	3, 5, 10		
	4	5, 10	20	1
	29	5, 10		
	4	5, 10, 15, 20	30	2
	29	5, 10		

FCC SAR Test Report

Downlink CA Configuration	LTE Bands	Channel Bandwidths for Carrier (MHz)	Maximum Aggregated Bandwidth (MHz)	Bandwidth Combination Set
CA_4A-46A	4	5, 10, 15, 20	40	0
	46	20		
CA_5A-66A	5	5, 10	30	0
	66	5, 10, 15, 20		
CA_5A-66A-66A	5	5, 10	50	0
	66	Refer to CA_66A-66A (BCS0)		
CA_5A-66C	5	5, 10	50	0
	66	Refer to CA_66C (BCS0)		
CA_7A-12A	7	5, 10, 15, 20	30	0
	12	5, 10		
CA_12A-66A	12	5, 10	20	0
	66	1.4, 3, 5, 10		
	12	5, 10	30	1
	66	1.4, 3, 5, 10, 15, 20		
	12	3, 5, 10	30	2
	66	5, 10, 15, 20		
	12	5, 10	20	3
	66	5, 10		
	12	5, 10	30	4
	66	5, 10, 15, 20		
	12	5	20	5
	66	5, 10, 15		
CA_13A-66A	13	5, 10	30	0
	66	5, 10, 15, 20		
CA_13A-66A-66A	13	5, 10	50	0
	66	Refer to CA_66A-66A (BCS0)		
CA_13A-66B	13	5, 10	30	0
	66	Refer to CA_66B (BCS0)		
CA_29A-66A	29	5, 10	30	0
	66	5, 10, 15, 20		

FCC SAR Test Report

LTE CA Configurations and Bandwidth Combination Sets defined for Inter-Band CA (Three Bands)

Downlink CA Configuration	LTE Bands	Channel Bandwidths for Carrier (MHz)	Maximum Aggregated Bandwidth (MHz)	Bandwidth Combination Set
CA_2A-4A-5A	2	5, 10, 15, 20	50	0
	4	5, 10, 15, 20		
	5	5, 10		
CA_2A-4A-7A	2	5, 10, 15, 20	60	0
	4	5, 10, 15, 20		
	7	5, 10, 15, 20		
CA_2A-4A-12A	2	5, 10, 15, 20	50	0
	4	5, 10, 15, 20		
	12	5, 10		
CA_2A-4A-13A	2	5, 10, 15, 20	50	0
	4	5, 10, 15, 20		
	13	10		
CA_2A-4A-29A	2	5, 10, 15, 20	50	0
	4	5, 10, 15, 20		
	29	5, 10		
CA_2A-13A-66A	2	5, 10, 15, 20	50	0
	13	5, 10		
	66	5, 10, 15, 20		
CA_4A-7A-12A	4	5, 10	40	0
	7	5, 10, 15, 20		
	12	5, 10		
	4	5, 10, 15, 20	50	1
	7	5, 10, 15, 20		
	12	5, 10		
	66	5, 10, 15, 20		

FCC SAR Test Report

<SAR Test Exclusion Evaluations for LTE Downlink CA>

According to Nov 2017 TCB Workshop, SAR test exclusion for LTE downlink Carrier Aggregation is determined by power measurements according to the number of component carriers (CCs) supported by the product implementation. The downlink Carrier Aggregation configurations are tabulated in separate columns. DL CA would be listed in the columns corresponding to Intra Band contiguous, Intra Band Non-contiguous, 2bands/2CCs, 2bands/3CCs, 3bands/3CCs. The CA/CC combinations in each columns are sorted so that frequency bands listed in subsequent columns on each row are ascending subsets, as following LTE Downlink CA table ; i.e., columns to the right correspond to increasing number of frequency bands and CCs.

	Intra Band		Inter Band		
	Contiguous	Non-Contiguous	2 Bands / 2CC	2 Bands / 3CC	3 Bands / 3CC
LTE Downlink CA-Configure	CA_2C	CA_2A-2A	CA_2A-4A	CA_2A-2A-5A	CA_2A-4A-5A
		CA_4A-4A	CA_4A-5A	CA_4A-4A-5A	
	CA_7B		CA_2A-7A	CA_2A-7A-7A	CA_2A-4A-7A
				CA_4A-7A-7A	
			CA_2A-12A	CA_2A-2A-12A	CA_2A-4A-12A
			CA_4A-12A	CA_4A-4A-12A	
			CA_2A-13A	CA_2A-2A-13A	CA_2A-4A-13A
			CA_4A-13A	CA_4A-4A-13A	
			CA_2A-29A		CA_2A-4A-29A
			CA_4A-29A		
			CA_2A-66A	CA_2A-66B	CA_2A-13A-66A
			CA_13A-66A	CA_2A-66C	
				CA_13A-66B	
				CA_2A-66A-66A	
			CA_4A-7A	CA_13A-66A-66A	CA_4A-7A-12A
	CA_7C		CA_7A-12A		
	CA_66B	CA_66A-66B	CA_5A-66A	CA_5A-66C	
	CA_66C	CA_66A-66C		CA_5A-66A-66A	
			CA_2A-46A		
			CA_4A-46A		
			CA_12A-66A		
			CA_66A-29A		
	CA_41D				

- Only yellow highlighted cells need power measurement.

FCC SAR Test Report

LTE Uplink Carrier Aggregation (CA) Setup Configurations

This device supports LTE uplink CA for band 41 only with a maximum of two 20 MHz carrier components in the uplink. The maximum output power for uplink intra-band contiguous CA specified in Table 6.2.2A-1 of 3GPP TS 36.101 is the same as single carrier specified in Table 6.2.2-1 of 3GPP TS 36.101. In Table 6.2.3A-1 of 3GPP TS 36.101, the MPR (maximum power reduction) for several dB is allowed due to modulation and contiguously aggregated transmit bandwidth configuration. All the RF parameters in this device have followed above 3GPP criteria.

LTE CA Configurations and Bandwidth Combination Sets defined for Intra-Band Contiguous CA

Uplink CA Configuration	Component carriers in order of increasing carrier frequency		Maximum Aggregated Bandwidth (MHz)	Bandwidth Combination Set
	Channel bandwidths for carrier-1 (MHz)	Channel bandwidths for carrier-2 (MHz)		
CA_7C	15	15	40	0
	20	20		
	10	20		
	15	15, 20	40	1
	20	10, 15, 20		
	15	10, 15	40	2
	20	15, 20		
CA_41C	10	20	40	0
	15	15, 20		
	20	10, 15, 20		
	5, 10	20	40	1
	15	15, 20		
	20	5, 10, 15, 20		
	10	15, 20	40	2
	15	10, 15, 20		
	20	10, 15, 20		
	10	20	40	3
	20	20		

4.2 EUT Testing Position

This variant report is made for verification. The LTE Band 7 and LTE Band 41 for configurations of CA was verified to ensure the device remains compliant.

4.2.1 Body Exposure Conditions

For laptop PC, according to KDB 616217 D04, SAR evaluation is required for the bottom surface of the keyboard. This EUT was tested in the base of EUT directly against the flat phantom. The required minimum test separation distance for incorporating transmitters and antennas into laptop computer display is determined with the display screen opened at an angle of 90° to the keyboard compartment.

For laptop PC, according to KDB 616217 D04, SAR evaluation is required for the bottom surface of the keyboard. This EUT was tested in the base of EUT directly against the flat phantom. The required minimum test separation distance for incorporating transmitters and antennas into laptop computer display is determined with the display screen opened at an angle of 90° to the keyboard compartment.

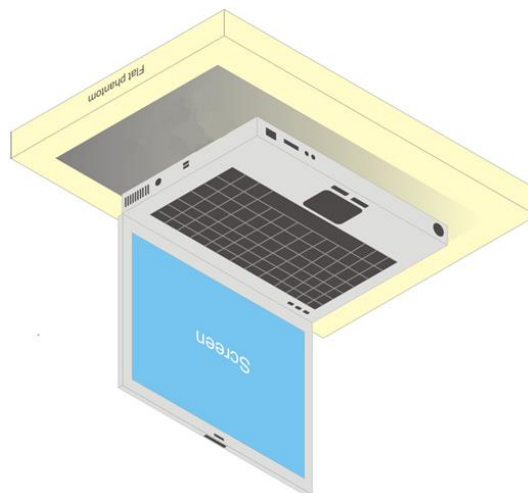


Fig-4.1 Illustration for Laptop Setup

FCC SAR Test Report

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

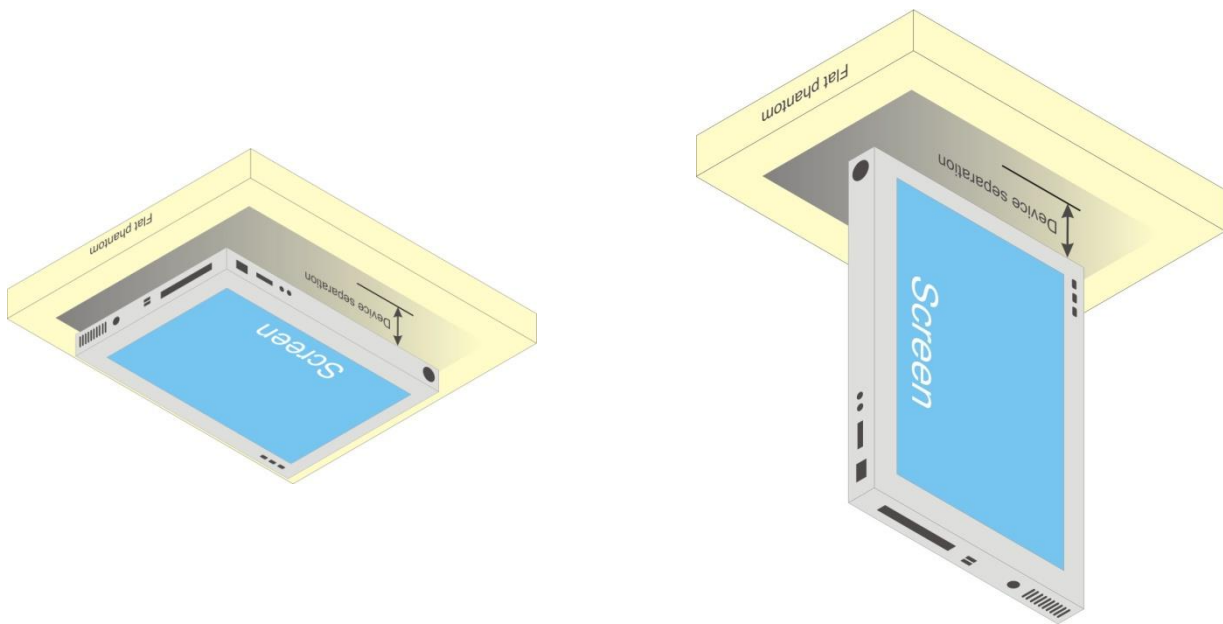


Fig-4.2 Illustration for Tablet Setup

FCC SAR Test Report

4.3 Tissue Verification

The measuring results for tissue simulating liquid are shown as below.

Test Date	Frequency (MHz)	Liquid Temp. (°C)	Measured Conductivity (σ)	Measured Permittivity (ϵ_r)	Target Conductivity (σ)	Target Permittivity (ϵ_r)	Conductivity Deviation (%)	Permittivity Deviation (%)
May 25, 2019	2600	23.5	2.03	37.41	1.96	39	3.57	-4.08

Note:

The dielectric properties of the tissue simulating liquid must be measured within 24 hours before the SAR testing and within $\pm 5\%$ of the target values. Liquid temperature during the SAR testing must be within ± 2 °C.

4.4 System Validation

The SAR measurement system was validated according to procedures in KDB 865664 D01. The validation status in tabulated summary is as below.

Test Date	Probe S/N	Calibration Point	Measured Conductivity (σ)	Measured Permittivity (ϵ_r)	Validation for CW			Validation for Modulation		
					Sensitivity Range	Probe Linearity	Probe Isotropy	Modulation Type	Duty Factor	PAR
May 25, 2019	3971	2600	2.03	37.41	Pass	Pass	Pass	N/A	N/A	N/A

4.5 System Verification

The measuring result for system verification is tabulated as below.

Test Date	Mode	Frequency (MHz)	1W Target SAR-1g (W/kg)	Measured SAR-1g (W/kg)	Normalized to 1W SAR-1g (W/kg)	Deviation (%)	Dipole S/N	Probe S/N	DAE S/N
May 25, 2019	Body	2600	55.70	13.5	54.00	-3.05	1020	3971	1431

Note:

Comparing to the reference SAR value provided by SPEAG, the validation data should be within its specification of 10 %. The result indicates the system check can meet the variation criterion and the plots can be referred to Appendix A of this report.

FCC SAR Test Report

4.6 Maximum Output Power

4.6.1 Maximum Target Conducted Power

The maximum conducted average power (Unit: dBm) including tune-up tolerance is shown as below.

Mode	WCDMA Band II (without Power Reduction)	WCDMA Band II (with Power Reduction)	Power Reduction (dB)
RMC 12.2K	22.5	20.0	2.5
HSDPA / HSUPA	22.5	19.5	3.0

Mode	WCDMA Band IV (without Power Reduction)	WCDMA Band IV (with Power Reduction)	Power Reduction (dB)
RMC 12.2K	24.0	21.5	2.5
HSDPA / HSUPA	24.0	20.5	3.5

Mode	WCDMA Band V
RMC 12.2K	24.0
HSDPA / HSUPA	24.0

Mode	LTE 2 (without Power Reduction)	LTE 2 (with Power Reduction)	Power Reduction (dB)
Maximum Target Power	22.5	20.0	2.5

Mode	LTE 4 (without Power Reduction)	LTE 4 (with Power Reduction)	Power Reduction (dB)
Maximum Target Power	24.0	21.5	2.5

Mode	LTE 7 (without Power Reduction)	LTE 7 (with Power Reduction)	Power Reduction (dB)
Maximum Target Power	23.0	21.0	2.0

Mode	LTE 12 (without Power Reduction)	LTE 12 (with Power Reduction)	Power Reduction (dB)
Maximum Target Power	24.0	22.0	2.0

Mode	LTE 5	LTE 13	LTE 14	LTE 26	LTE 41
Maximum Target Power	24.0	24.0	24.0	24.0	23.0

Mode	LTE 66 (without Power Reduction)	LTE 66 (with Power Reduction)	Power Reduction (dB)
Maximum Target Power	24.0	21.5	2.5

FCC SAR Test Report

<WLAN 2.4G>

Mode	Channel	Frequency (MHz)	Ant-0	Ant-1	Ant-0 + Ant-1
802.11b	1	2412	18.0	15.0	N/A
	6	2437	18.0	15.0	N/A
	11	2462	18.0	15.0	N/A
802.11g	1	2412	18.0	15.0	N/A
	6	2437	18.0	15.0	N/A
	11	2462	18.0	15.0	N/A
802.11n (HT20)	1	2412	17.5	14.5	18.5
	6	2437	17.5	14.5	18.5
	11	2462	17.5	14.5	18.5
802.11n (HT40)	3	2422	17.5	14.5	18.0
	6	2437	17.5	14.5	18.0
	9	2452	17.5	14.5	18.0

<WLAN 5.2G>

Mode	Channel	Frequency (MHz)	Ant-0	Ant-1	Ant-0 + Ant-1
802.11a	36	5180	19.0	13.5	N/A
	40	5200	19.0	13.5	N/A
	44	5220	19.0	13.5	N/A
	48	5240	19.0	13.5	N/A
802.11n (HT20)	36	5180	19.0	13.5	15.5
	40	5200	19.0	13.5	15.5
	44	5220	19.0	13.5	15.5
	48	5240	19.0	13.5	15.5
802.11n (HT40)	38	5190	19.0	13.5	15.5
	46	5230	19.0	13.5	15.5
802.11ac (VHT80)	42	5210	18.5	13.0	15.0

<WLAN 5.3G>

Mode	Channel	Frequency (MHz)	Ant-0	Ant-1	Ant-0 + Ant-1
802.11a	52	5260	19.0	13.5	N/A
	56	5280	19.0	13.5	N/A
	60	5300	19.0	13.5	N/A
	64	5320	19.0	13.5	N/A
802.11n (HT20)	52	5260	19.0	13.5	15.5
	56	5280	19.0	13.5	15.5
	60	5300	19.0	13.5	15.5
	64	5320	19.0	13.5	15.5
802.11n (HT40)	54	5270	19.0	13.5	15.5
	62	5310	19.0	13.5	15.5
802.11ac (VHT80)	58	5290	18.5	13.0	15.0

FCC SAR Test Report

<WLAN 5.6G>

Mode	Channel	Frequency (MHz)	Ant-0	Ant-1	Ant-0 + Ant-1
802.11a	100	5500	18.5	12.0	N/A
	116	5580	18.5	12.0	N/A
	120	5600	18.5	12.0	N/A
	124	5620	18.5	12.0	N/A
	132	5660	18.5	12.0	N/A
	140	5700	18.5	12.0	N/A
802.11n (HT20)	100	5500	18.5	12.0	15.5
	116	5580	18.5	12.0	15.5
	120	5600	18.5	12.0	15.5
	124	5620	18.5	12.0	15.5
	132	5660	18.5	12.0	15.5
	140	5700	18.5	12.0	15.5
802.11n (HT40)	102	5510	18.5	12.0	15.5
	110	5550	18.5	12.0	15.5
	118	5590	18.5	12.0	15.5
	126	5630	18.5	12.0	15.5
	134	5670	18.5	12.0	15.5
	142	5710	18.5	12.0	15.5
802.11ac (VHT80)	106	5530	18.0	11.5	14.5
	122	5610	18.0	11.5	14.5
	138	5690	18.0	11.5	14.5

<WLAN 5.8G>

Mode	Channel	Frequency (MHz)	Ant-0	Ant-1	Ant-0 + Ant-1
802.11a	149	5745	18.5	12.0	N/A
	153	5765	18.5	12.0	N/A
	157	5785	18.5	12.0	N/A
	161	5805	18.5	12.0	N/A
	165	5825	18.5	12.0	N/A
802.11n (HT20)	149	5745	18.5	12.0	14.5
	153	5765	18.5	12.0	14.5
	157	5785	18.5	12.0	14.5
	161	5805	18.5	12.0	14.5
	165	5825	18.5	12.0	14.5
802.11n (HT40)	151	5755	18.5	12.0	14.5
	159	5795	18.5	12.0	14.5
802.11ac (VHT80)	155	5775	18.0	11.5	14.0

<Bluetooth>

Mode	Channel	Frequency (MHz)	Tune-up
Bluetooth EDR	0	2402	12.0
	39	2441	12.0
	78	2480	12.0
Bluetooth LE	0	2402	5
	19	2440	5
	39	2480	5

FCC SAR Test Report

4.6.2 Measured Conducted Power Result

The measuring conducted average power (Unit: dBm) is shown as below.

Band	WCDMA Band II			WCDMA Band IV			3GPP MPR (dB)
Channel	9262	9400	9538	1312	1413	1513	
Frequency (MHz)	1852.4	1880.0	1907.6	1712.4	1732.6	1752.6	
EUT without Power Reduction (P-Sensor NOT Triggered)							
RMC 12.2K	22.42	22.24	22.31	23.57	23.81	23.36	-
HSDPA Subtest-1	21.50	21.32	21.32	22.65	22.75	22.40	0
HSDPA Subtest-2	21.43	21.25	21.32	22.57	22.72	22.44	0
HSDPA Subtest-3	21.06	20.88	20.95	22.06	22.27	21.92	0.5
HSDPA Subtest-4	21.09	20.91	20.98	22.04	22.19	21.93	0.5
HSUPA Subtest-1	21.79	21.60	21.79	22.55	22.84	22.47	0
HSUPA Subtest-2	19.89	19.69	19.81	20.61	20.67	20.38	2
HSUPA Subtest-3	20.81	20.67	20.79	21.59	21.73	21.50	1
HSUPA Subtest-4	19.84	19.71	19.81	20.64	20.70	20.39	2
HSUPA Subtest-5	21.69	21.61	21.66	22.40	22.60	22.30	0
EUT with Power Reduction (P-Sensor Triggered)							
RMC 12.2K	19.96	19.80	19.95	21.19	21.20	21.10	-
HSDPA Subtest-1	19.05	18.89	19.04	20.26	20.27	20.17	-
HSDPA Subtest-2	19.20	19.04	19.19	20.24	20.25	20.15	-
HSDPA Subtest-3	18.60	18.44	18.59	19.76	19.77	19.67	-
HSDPA Subtest-4	18.53	18.37	18.52	19.72	19.73	19.63	-
HSUPA Subtest-1	18.76	18.60	18.75	20.21	20.22	20.12	-
HSUPA Subtest-2	16.85	16.69	16.84	18.19	18.20	18.10	-
HSUPA Subtest-3	17.78	17.62	17.77	19.13	19.14	19.04	-
HSUPA Subtest-4	16.86	16.70	16.85	18.26	18.27	18.17	-
HSUPA Subtest-5	18.66	18.50	18.65	20.09	20.10	20.00	-

Band	WCDMA Band V			3GPP MPR (dB)
Channel	4132	4182	4233	
Frequency (MHz)	826.4	836.4	846.6	
RMC 12.2K	23.25	23.99	23.98	-
HSDPA Subtest-1	23.23	23.43	23.15	0
HSDPA Subtest-2	23.19	23.34	23.22	0
HSDPA Subtest-3	22.73	22.91	22.63	0.5
HSDPA Subtest-4	22.71	22.89	22.61	0.5
HSUPA Subtest-1	23.16	23.26	23.13	0
HSUPA Subtest-2	21.21	21.28	21.04	2
HSUPA Subtest-3	22.25	22.25	22.15	1
HSUPA Subtest-4	21.32	21.41	21.17	2
HSUPA Subtest-5	23.10	23.10	23.00	0

FCC SAR Test Report

LTE Band 2															
EUT without Power Reduction (P-Sensor NOT Triggered)															
BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)	BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)
		Channel		18700	18900	19100				Channel		18675	18900	19125	
		Frequency (MHz)		1860.0	1880.0	1900.0				Frequency (MHz)		1857.5	1880.0	1902.5	
20M	QPSK	1	0	22.46	22.24	22.48	0	15M	QPSK	1	0	22.36	22.23	22.41	0
		1	50	21.89	21.67	21.91	0			1	37	21.89	21.62	21.83	0
		1	99	21.88	21.66	21.90	0			1	74	21.79	21.58	21.81	0
		50	0	21.00	20.78	21.02	1			36	0	20.91	20.77	20.99	1
		50	25	20.95	20.73	20.97	1			36	19	20.90	20.64	20.88	1
		50	50	20.86	20.64	20.88	1			36	39	20.85	20.59	20.80	1
		100	0	20.95	20.73	20.97	1			75	0	20.88	20.72	20.91	1
	16QAM	1	0	21.63	21.41	21.65	1		16QAM	1	0	21.57	21.38	21.61	1
		1	50	21.19	20.97	21.21	1			1	37	21.16	20.97	21.14	1
		1	99	21.18	20.96	21.20	1			1	74	21.15	20.96	21.12	1
		50	0	20.04	19.82	20.06	2			36	0	19.98	19.79	19.99	2
		50	25	19.99	19.77	20.01	2			36	19	19.93	19.71	19.91	2
		50	50	19.87	19.65	19.89	2			36	39	19.81	19.64	19.89	2
	64QAM	100	0	19.98	19.76	20.00	2		75	0	19.93	19.66	19.93	2	
		1	0	20.50	20.28	20.52	2		64QAM	1	0	20.40	20.19	20.44	2
		1	50	20.16	19.94	20.18	2			1	37	20.15	19.88	20.08	2
		1	99	20.08	19.86	20.10	2			1	74	20.08	19.79	20.03	2
		50	0	19.03	18.81	19.05	3			36	0	18.99	18.74	18.95	3
		50	25	18.99	18.77	19.01	3			36	19	18.98	18.73	18.94	3
		50	50	18.86	18.64	18.88	3			36	39	18.86	18.54	18.79	3
	100	0	18.97	18.75	18.99	3	75			0	18.96	18.74	18.99	3	
EUT with Power Reduction (P-Sensor Triggered)															
BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)	BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)
		Channel		18700	18900	19100				Channel		18675	18900	19125	
		Frequency (MHz)		1860.0	1880.0	1900.0				Frequency (MHz)		1857.5	1880.0	1902.5	
20M	QPSK	1	0	19.57	19.54	19.68	-	15M	QPSK	1	0	19.49	19.47	19.61	-
		1	50	19.25	19.22	19.36	-			1	37	19.17	19.18	19.36	-
		1	99	19.14	19.11	19.25	-			1	74	19.06	19.05	19.19	-
		50	0	19.53	19.50	19.64	-			36	0	19.53	19.47	19.55	-
		50	25	19.52	19.49	19.63	-			36	19	19.48	19.39	19.57	-
		50	50	19.51	19.48	19.62	-			36	39	19.49	19.42	19.54	-
		100	0	19.54	19.51	19.65	-			75	0	19.46	19.50	19.65	-
	16QAM	1	0	19.50	19.52	19.65	-		16QAM	1	0	19.44	19.47	19.51	-
		1	50	19.17	19.20	19.27	-			1	37	19.20	19.15	19.29	-
		1	99	19.05	19.02	19.15	-			1	74	19.05	19.00	19.15	-
		50	0	19.50	19.42	19.60	-			36	0	19.47	19.34	19.54	-
		50	25	19.45	19.49	19.54	-			36	19	19.45	19.41	19.57	-
		50	50	19.49	19.39	19.58	-			36	39	19.44	19.45	19.46	-
	64QAM	100	0	19.46	19.51	19.63	-		75	0	19.43	19.35	19.58	-	
		1	0	19.53	19.52	19.63	-		64QAM	1	0	19.53	19.46	19.48	-
		1	50	19.20	19.22	19.35	-			1	37	19.15	19.07	19.19	-
		1	99	19.07	19.06	19.25	-			1	74	19.02	18.94	19.24	-
		50	0	19.45	19.45	19.61	-			36	0	19.42	19.47	19.62	-
		50	25	19.45	19.45	19.54	-			36	19	19.40	19.41	19.57	-
		50	50	19.44	19.46	19.53	-			36	39	19.43	19.44	19.55	-
	100	0	19.52	19.41	19.57	-	75			0	19.43	19.44	19.63	-	

FCC SAR Test Report

LTE Band 2																	
EUT without Power Reduction (P-Sensor NOT Triggered)																	
BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)	BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)		
		Channel		18650	18900	19150				Channel		18625	18900	19175			
		Frequency (MHz)		1855.0	1880.0	1905.0				Frequency (MHz)		1852.5	1880.0	1907.5			
10M	QPSK	1	0	22.21	22.16	22.30	0	5M	QPSK	1	0	22.26	22.07	22.37	0		
		1	24	21.75	21.57	21.77	0			1	12	21.72	21.56	21.60	0		
		1	49	21.76	21.53	21.84	0			1	24	21.71	21.58	21.67	0		
		25	0	20.90	20.72	20.93	1			12	0	20.98	20.64	20.80	1		
		25	12	20.78	20.52	20.75	1			12	6	20.74	20.51	20.75	1		
		25	25	20.85	20.53	20.65	1			12	13	20.73	20.51	20.75	1		
		50	0	20.89	20.66	20.73	1			25	0	20.86	20.51	20.79	1		
	16QAM	1	0	21.46	21.26	21.47	1		16QAM	1	0	21.49	21.30	21.59	1		
		1	24	21.02	20.73	21.06	1			1	12	21.02	20.86	21.10	1		
		1	49	21.02	20.77	21.07	1			1	24	21.12	20.75	20.98	1		
		25	0	19.86	19.67	20.04	2			12	0	19.95	19.74	19.93	2		
		25	12	19.83	19.66	19.87	2			12	6	19.82	19.61	19.97	2		
		25	25	19.65	19.59	19.77	2			12	13	19.72	19.47	19.68	2		
	64QAM	50	0	19.93	19.70	19.95	2		25	0	19.94	19.60	19.89	2			
		1	0	20.50	20.17	20.34	2		64QAM	1	0	20.26	20.19	20.43	2		
		1	24	20.07	19.78	20.18	2			1	12	20.01	19.80	20.02	2		
		1	49	19.87	19.72	19.87	2			1	24	19.97	19.76	19.92	2		
		25	0	18.87	18.66	18.96	3			12	0	18.95	18.73	18.93	3		
		25	12	18.89	18.63	18.86	3			12	6	18.91	18.67	18.93	3		
		25	25	18.71	18.61	18.66	3			12	13	18.78	18.49	18.88	3		
	50	0	18.78	18.66	18.82	3	25			0	18.87	18.51	18.87	3			
	EUT with Power Reduction (P-Sensor Triggered)																
	10M	QPSK	1	0	19.45	19.46	19.61		-	5M	QPSK	1	0	19.41	19.32	19.53	-
			1	24	19.00	19.19	19.33		-			1	12	19.04	19.02	19.27	-
1			49	19.01	18.92	19.12	-	1	24			18.94	19.02	19.08	-		
25			0	19.32	19.38	19.49	-	12	0			19.48	19.43	19.43	-		
25			12	19.48	19.37	19.55	-	12	6			19.46	19.37	19.32	-		
25			25	19.38	19.37	19.52	-	12	13			19.41	19.37	19.46	-		
50			0	19.29	19.34	19.50	-	25	0			19.32	19.43	19.40	-		
16QAM		1	0	19.34	19.45	19.59	-	16QAM	1		0	19.35	19.41	19.52	-		
		1	24	19.06	19.11	19.11	-		1		12	19.09	18.98	19.06	-		
		1	49	18.90	19.02	18.93	-		1		24	18.94	18.94	19.11	-		
		25	0	19.41	19.33	19.46	-		12		0	19.30	19.38	19.42	-		
		25	12	19.38	19.34	19.43	-		12		6	19.27	19.19	19.57	-		
		25	25	19.32	19.25	19.34	-		12		13	19.29	19.18	19.53	-		
64QAM		50	0	19.43	19.44	19.46	-	25	0		19.30	19.33	19.44	-			
		1	0	19.38	19.28	19.62	-	64QAM	1		0	19.33	19.47	19.49	-		
		1	24	18.94	19.08	19.14	-		1		12	19.11	19.10	19.15	-		
		1	49	18.84	18.85	19.06	-		1		24	19.05	19.01	19.19	-		
		25	0	19.32	19.37	19.51	-		12		0	19.49	19.31	19.39	-		
		25	12	19.31	19.39	19.49	-		12		6	19.31	19.43	19.35	-		
		25	25	19.37	19.38	19.41	-		12		13	19.30	19.26	19.40	-		
50		0	19.32	19.35	19.39	-	25		0		19.43	19.29	19.51	-			

FCC SAR Test Report

LTE Band 2															
EUT without Power Reduction (P-Sensor NOT Triggered)															
BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)	BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)
		Channel		18615	18900	19185				Channel		18607	18900	19193	
		Frequency (MHz)		1851.5	1880.0	1908.5				Frequency (MHz)		1850.7	1880.0	1909.3	
3M	QPSK	1	0	22.32	22.07	22.44	0	1.4M	QPSK	1	0	22.24	22.07	22.29	0
		1	7	21.77	21.57	21.78	0			1	2	21.78	21.63	21.74	0
		1	14	21.64	21.56	21.69	0			1	5	21.78	21.48	21.74	0
		8	0	20.90	20.55	20.91	1			3	0	21.88	21.72	21.80	0
		8	3	20.77	20.73	20.78	1			3	1	21.73	21.64	21.85	0
		8	7	20.80	20.63	20.82	1			3	3	21.68	21.62	21.73	0
		15	0	20.81	20.53	20.89	1			6	0	20.81	20.63	20.75	1
	16QAM	1	0	21.42	21.27	21.57	1		16QAM	1	0	21.56	21.25	21.49	1
		1	7	21.08	20.87	21.08	1			1	2	21.12	20.85	21.05	1
		1	14	21.00	20.87	21.05	1			1	5	21.13	20.82	21.04	1
		8	0	19.89	19.57	19.83	2			3	0	20.91	20.65	20.95	1
		8	3	19.89	19.67	19.82	2			3	1	20.88	20.63	20.89	1
		8	7	19.79	19.60	19.71	2			3	3	20.80	20.54	20.80	1
	64QAM	15	0	19.88	19.67	19.82	2		64QAM	6	0	19.93	19.54	19.82	2
		1	0	20.36	20.19	20.42	2			1	0	20.33	20.08	20.41	2
		1	7	20.01	19.82	20.05	2			1	2	19.96	19.82	20.02	2
		1	14	19.87	19.65	20.02	2			1	5	20.02	19.67	20.03	2
		8	0	18.94	18.65	19.00	3			3	0	19.94	19.72	19.95	2
		8	3	18.97	18.75	18.86	3			3	1	19.87	19.68	19.79	2
		8	7	18.72	18.50	18.76	3			3	3	19.64	19.55	19.77	2
	15	0	18.82	18.64	18.80	3	6		0	18.91	18.68	18.87	3		
EUT with Power Reduction (P-Sensor Triggered)															
BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)	BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)
		Channel		18615	18900	19185				Channel		18607	18900	19193	
		Frequency (MHz)		1851.5	1880.0	1908.5				Frequency (MHz)		1850.7	1880.0	1909.3	
3M	QPSK	1	0	19.44	19.35	19.48	-	1.4M	QPSK	1	0	19.45	19.41	19.54	-
		1	7	19.04	19.17	19.28	-			1	2	19.17	19.18	19.14	-
		1	14	19.03	18.96	19.14	-			1	5	19.14	19.04	19.04	-
		8	0	19.38	19.47	19.52	-			3	0	19.48	19.37	19.60	-
		8	3	19.46	19.40	19.50	-			3	1	19.33	19.38	19.50	-
		8	7	19.29	19.28	19.57	-			3	3	19.36	19.39	19.51	-
		15	0	19.33	19.39	19.55	-			6	0	19.36	19.30	19.49	-
	16QAM	1	0	19.53	19.22	19.59	-		16QAM	1	0	19.46	19.31	19.43	-
		1	7	19.10	19.06	19.03	-			1	2	19.15	18.97	19.18	-
		1	14	18.99	18.87	19.00	-			1	5	18.94	18.91	19.19	-
		8	0	19.28	19.33	19.36	-			3	0	19.26	19.39	19.44	-
		8	3	19.27	19.31	19.36	-			3	1	19.28	19.32	19.41	-
		8	7	19.35	19.37	19.49	-			3	3	19.33	19.22	19.42	-
	64QAM	15	0	19.38	19.38	19.40	-		64QAM	6	0	19.42	19.28	19.52	-
		1	0	19.49	19.31	19.39	-			1	0	19.45	19.44	19.48	-
		1	7	19.12	19.09	19.21	-			1	2	19.11	18.91	19.11	-
		1	14	19.01	19.00	19.12	-			1	5	18.99	18.96	19.12	-
		8	0	19.37	19.28	19.51	-			3	0	19.47	19.39	19.42	-
		8	3	19.30	19.23	19.44	-			3	1	19.39	19.38	19.33	-
		8	7	19.33	19.29	19.46	-			3	3	19.47	19.28	19.49	-
	15	0	19.30	19.24	19.45	-	6		0	19.30	19.24	19.44	-		

FCC SAR Test Report

LTE Band 4																	
EUT without Power Reduction (P-Sensor NOT Triggered)																	
BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)	BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)		
		Channel		20050	20175	20300				Channel		20025	20175	20325			
		Frequency (MHz)		1720.0	1732.5	1745.0				Frequency (MHz)		1717.5	1732.5	1747.5			
20M	QPSK	1	0	23.71	23.90	23.94	0	15M	QPSK	1	0	23.62	23.87	23.86	0		
		1	50	23.72	23.78	23.85	0			1	37	23.68	23.83	23.72	0		
		1	99	23.63	23.67	23.69	0			1	74	23.58	23.58	23.51	0		
		50	0	22.76	22.78	22.87	1			36	0	22.76	22.86	22.71	1		
		50	25	22.72	22.78	22.86	1			36	19	22.70	22.76	22.70	1		
		50	50	22.71	22.73	22.82	1			36	39	22.66	22.76	22.69	1		
		100	0	22.70	22.74	22.83	1			75	0	22.60	22.75	22.72	1		
		1	0	22.96	23.08	23.11	1			16QAM	1	0	22.69	22.84	22.93	1	
	1	50	22.95	23.15	22.99	1	1		37		22.67	22.77	22.67	1			
	1	99	22.94	22.95	22.89	1	1		74		22.67	22.59	22.58	1			
	50	0	21.80	21.92	21.84	2	36		0		21.67	21.86	21.77	2			
	50	25	21.76	21.89	21.79	2	36		19		21.63	21.77	21.72	2			
	50	50	21.72	21.87	21.77	2	36		39		21.67	21.81	21.67	2			
	100	0	21.72	21.88	21.77	2	75		0		21.61	21.83	21.67	2			
	64QAM	1	0	21.71	21.93	21.84	2		64QAM		1	0	21.67	21.91	21.86	2	
		1	50	21.67	21.84	21.68	2			1	37	21.69	21.83	21.65	2		
		1	99	21.61	21.62	21.55	2			1	74	21.66	21.67	21.58	2		
		50	0	20.66	20.80	20.79	3			36	0	20.72	20.81	20.72	3		
		50	25	20.70	20.80	20.73	3			36	19	20.67	20.76	20.67	3		
		50	50	20.66	20.72	20.63	3			36	39	20.66	20.75	20.70	3		
		100	0	20.65	20.73	20.67	3			75	0	20.61	20.82	20.68	3		
		EUT with Power Reduction (P-Sensor Triggered)															
	BW	MCS Index	RB Size	RB Offset	Low	Mid	High		3GPP MPR (dB)	BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)
			Channel		20050	20175	20300					Channel		20025	20175	20325	
Frequency (MHz)			1720.0	1732.5	1745.0	Frequency (MHz)		1717.5				1732.5	1747.5				
20M	QPSK	1	0	21.08	21.16	21.18	-	15M	QPSK	1	0	21.07	21.07	21.16	-		
		1	50	20.89	20.97	20.99	-			1	37	20.85	20.91	20.94	-		
		1	99	20.85	20.93	20.95	-			1	74	20.77	20.93	20.85	-		
		50	0	21.01	21.09	21.11	-			36	0	20.96	20.99	21.09	-		
		50	25	20.99	21.07	21.09	-			36	19	20.95	21.03	21.07	-		
		50	50	20.95	21.03	21.05	-			36	39	20.94	20.97	20.96	-		
		100	0	21.03	21.11	21.13	-			75	0	20.93	21.08	21.09	-		
		16QAM	1	0	21.07	21.06	21.08			-	16QAM	1	0	20.92	21.04	21.10	-
	1		50	20.85	20.92	20.91	-		1	37		20.85	20.84	20.92	-		
	1		99	20.75	20.92	20.95	-		1	74		20.79	20.91	20.82	-		
	50		0	20.97	21.00	21.09	-		36	0		20.89	21.00	21.10	-		
	50		25	20.95	21.04	21.03	-		36	19		20.87	21.04	20.98	-		
	50		50	20.87	20.94	21.05	-		36	39		20.89	20.94	21.00	-		
	100		0	20.94	21.08	21.12	-		75	0		20.93	21.05	21.05	-		
	64QAM		1	0	20.98	21.06	21.12		-	64QAM		1	0	20.96	21.02	21.06	-
		1	50	20.79	20.93	20.99	-		1		37	20.76	20.86	20.84	-		
		1	99	20.80	20.83	20.89	-		1		74	20.73	20.78	20.94	-		
		50	0	20.93	21.07	21.05	-		36		0	20.87	21.04	20.96	-		
		50	25	20.95	21.06	21.05	-		36		19	20.90	21.01	20.98	-		
		50	50	20.90	21.00	20.95	-		36		39	20.78	21.00	20.98	-		
		100	0	20.97	21.03	21.11	-		75		0	20.99	21.00	21.05	-		

FCC SAR Test Report

LTE Band 4															
EUT without Power Reduction (P-Sensor NOT Triggered)															
BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)	BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)
		Channel		20000	20175	20350				Channel		19975	20175	20375	
		Frequency (MHz)		1715.0	1732.5	1750.0				Frequency (MHz)		1712.5	1732.5	1752.5	
10M	QPSK	1	0	23.67	23.92	23.92	0	5M	QPSK	1	0	23.66	23.86	23.93	0
		1	24	23.68	23.82	23.69	0			1	12	23.69	23.80	23.65	0
		1	49	23.65	23.58	23.58	0			1	24	23.61	23.62	23.55	0
		25	0	22.75	22.80	22.74	1			12	0	22.66	22.84	22.75	1
		25	12	22.72	22.81	22.74	1			12	6	22.72	22.85	22.70	1
		25	25	22.61	22.81	22.70	1			12	13	22.64	22.81	22.65	1
		50	0	22.65	22.83	22.65	1			25	0	22.64	22.74	22.68	1
	16QAM	1	0	22.62	22.89	22.85	1		16QAM	1	0	22.67	22.90	22.91	1
		1	24	22.66	22.79	22.70	1			1	12	22.68	22.83	22.67	1
		1	49	22.61	22.61	22.51	1			1	24	22.64	22.64	22.52	1
		25	0	21.75	21.85	21.79	2			12	0	21.73	21.85	21.74	2
		25	12	21.69	21.80	21.70	2			12	6	21.68	21.84	21.74	2
		25	25	21.61	21.75	21.71	2			12	13	21.63	21.82	21.66	2
	64QAM	50	0	21.66	21.76	21.71	2		25	0	21.63	21.83	21.67	2	
		1	0	21.65	21.90	21.91	2		64QAM	1	0	21.70	21.90	21.86	2
		1	24	21.65	21.80	21.72	2			1	12	21.67	21.85	21.66	2
		1	49	21.59	21.62	21.61	2			1	24	21.65	21.66	21.61	2
		25	0	20.70	20.80	20.77	3			12	0	20.69	20.82	20.71	3
		25	12	20.72	20.79	20.74	3			12	6	20.69	20.81	20.73	3
		25	25	20.61	20.76	20.71	3			12	13	20.70	20.72	20.73	3
	50	0	20.69	20.73	20.64	3	25			0	20.65	20.83	20.69	3	
	EUT with Power Reduction (P-Sensor Triggered)														
BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)	BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)
		Channel		20000	20175	20350				Channel		19975	20175	20375	
		Frequency (MHz)		1715.0	1732.5	1750.0				Frequency (MHz)		1712.5	1732.5	1752.5	
10M	QPSK	1	0	20.91	20.95	21.03	-	5M	QPSK	1	0	20.93	21.04	20.84	-
		1	24	20.85	20.85	20.89	-			1	12	20.75	20.77	20.90	-
		1	49	20.75	20.77	20.87	-			1	24	20.75	20.81	20.69	-
		25	0	20.97	20.87	20.97	-			12	0	20.89	21.06	21.02	-
		25	12	20.91	20.96	20.92	-			12	6	20.78	20.97	20.77	-
		25	25	20.91	20.96	21.03	-			12	13	20.91	20.92	20.82	-
		50	0	20.87	20.97	20.98	-			25	0	20.93	21.00	20.95	-
	16QAM	1	0	20.92	20.92	20.92	-		16QAM	1	0	20.91	21.01	21.04	-
		1	24	20.61	20.69	20.79	-			1	12	20.76	20.76	20.96	-
		1	49	20.70	20.67	20.81	-			1	24	20.70	20.80	20.64	-
		25	0	20.76	20.90	21.02	-			12	0	20.83	20.82	21.08	-
		25	12	20.82	20.81	21.02	-			12	6	20.85	20.84	20.84	-
		25	25	20.73	20.81	20.82	-			12	13	20.73	20.93	20.89	-
	64QAM	50	0	20.92	21.09	21.04	-		25	0	20.82	20.92	20.90	-	
		1	0	20.85	20.88	21.02	-		64QAM	1	0	20.83	20.95	21.09	-
		1	24	20.64	20.70	20.82	-			1	12	20.74	20.78	20.74	-
		1	49	20.66	20.78	20.71	-			1	24	20.61	20.79	20.69	-
		25	0	20.80	20.92	20.87	-			12	0	20.82	20.91	20.92	-
		25	12	20.77	20.88	20.90	-			12	6	20.78	20.92	20.98	-
		25	25	20.76	20.86	20.90	-			12	13	20.81	20.89	20.90	-
	50	0	20.85	21.06	21.01	-	25			0	20.88	20.90	21.02	-	

FCC SAR Test Report

LTE Band 4															
EUT without Power Reduction (P-Sensor NOT Triggered)															
BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)	BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)
		Channel		19965	20175	20385				Channel		19957	20175	20393	
		Frequency (MHz)		1711.5	1732.5	1753.5				Frequency (MHz)		1710.7	1732.5	1754.3	
3M	QPSK	1	0	23.63	23.90	23.85	0	1.4M	QPSK	1	0	23.61	23.90	23.93	0
		1	7	23.71	23.84	23.65	0			1	2	23.63	23.85	23.62	0
		1	14	23.60	23.66	23.61	0			1	5	23.58	23.67	23.51	0
		8	0	22.76	22.80	22.75	1			3	0	22.67	22.80	22.79	0
		8	3	22.70	22.80	22.72	1			3	1	22.65	22.79	22.75	0
		8	7	22.62	22.74	22.72	1			3	3	22.69	22.79	22.68	0
		15	0	22.64	22.83	22.69	1			6	0	22.61	22.78	22.74	1
	16QAM	1	0	22.71	22.88	22.93	1		16QAM	1	0	22.61	22.85	22.88	1
		1	7	22.72	22.82	22.68	1			1	2	22.70	22.82	22.67	1
		1	14	22.67	22.67	22.51	1			1	5	22.60	22.57	22.60	1
		8	0	21.66	21.79	21.76	2			3	0	21.72	21.80	21.75	1
		8	3	21.72	21.84	21.68	2			3	1	21.69	21.78	21.70	1
		8	7	21.67	21.75	21.67	2			3	3	21.70	21.80	21.64	1
		15	0	21.66	21.79	21.70	2			6	0	21.65	21.75	21.72	2
	64QAM	1	0	21.64	21.84	21.85	2		64QAM	1	0	21.68	21.91	21.93	2
		1	7	21.64	21.83	21.62	2			1	2	21.68	21.84	21.65	2
		1	14	21.58	21.67	21.57	2			1	5	21.67	21.61	21.61	2
		8	0	20.75	20.79	20.73	3			3	0	20.76	20.80	20.79	2
		8	3	20.68	20.86	20.69	3			3	1	20.66	20.82	20.72	2
		8	7	20.62	20.72	20.63	3			3	3	20.63	20.81	20.68	2
		15	0	20.60	20.74	20.72	3			6	0	20.64	20.74	20.71	3
EUT with Power Reduction (P-Sensor Triggered)															
BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)	BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)
		Channel		19965	20175	20385				Channel		19957	20175	20393	
		Frequency (MHz)		1711.5	1732.5	1753.5				Frequency (MHz)		1710.7	1732.5	1754.3	
3M	QPSK	1	0	20.93	21.06	21.17	-	1.4M	QPSK	1	0	21.00	20.98	21.15	-
		1	7	20.69	20.80	20.83	-			1	2	20.72	20.84	20.80	-
		1	14	20.79	20.84	20.83	-			1	5	20.76	20.80	20.71	-
		8	0	20.90	20.97	21.03	-			3	0	20.89	21.04	20.96	-
		8	3	20.84	21.02	21.01	-			3	1	20.93	20.93	21.04	-
		8	7	20.86	20.93	20.98	-			3	3	20.79	20.95	20.98	-
		15	0	20.95	20.87	21.06	-			6	0	20.89	20.94	20.89	-
	16QAM	1	0	20.92	20.94	20.96	-		16QAM	1	0	20.88	21.07	21.03	-
		1	7	20.63	20.82	20.81	-			1	2	20.77	20.85	20.79	-
		1	14	20.64	20.66	20.76	-			1	5	20.77	20.58	20.76	-
		8	0	20.76	20.95	20.89	-			3	0	20.82	20.98	20.94	-
		8	3	20.85	20.86	20.78	-			3	1	20.72	20.95	20.86	-
		8	7	20.62	20.79	20.97	-			3	3	20.89	20.85	20.96	-
		15	0	20.84	21.06	20.84	-			6	0	20.82	20.92	21.01	-
	64QAM	1	0	20.87	21.02	20.99	-		64QAM	1	0	20.88	21.03	21.05	-
		1	7	20.74	20.88	20.83	-			1	2	20.83	20.86	20.72	-
		1	14	20.74	20.81	20.69	-			1	5	20.75	20.81	20.76	-
		8	0	20.88	20.87	20.90	-			3	0	20.72	20.99	20.91	-
		8	3	20.77	20.92	20.95	-			3	1	20.70	20.92	20.89	-
		8	7	20.69	20.92	20.94	-			3	3	20.78	20.86	20.82	-
		15	0	20.83	20.89	20.91	-			6	0	20.88	21.03	20.96	-

FCC SAR Test Report

LTE Band 5															
BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)	BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)
		Channel		20450	20525	20600				Channel		20425	20525	20625	
		Frequency (MHz)		829.0	836.5	844.0				Frequency (MHz)		826.5	836.5	846.5	
10M	QPSK	1	0	23.53	23.44	23.48	0	5M	QPSK	1	0	23.52	23.35	23.42	0
		1	24	23.44	23.41	23.42	0			1	12	23.36	23.38	23.39	0
		1	49	23.40	23.33	23.31	0			1	24	23.36	23.29	23.26	0
		25	0	22.54	22.53	22.50	1			12	0	22.50	22.50	22.44	1
		25	12	22.49	22.46	22.47	1			12	6	22.45	22.38	22.45	1
		25	25	22.49	22.41	22.44	1			12	13	22.44	22.40	22.42	1
		50	0	22.52	22.43	22.48	1			25	0	22.52	22.34	22.43	1
		50	0	22.52	22.43	22.48	1			25	0	22.52	22.34	22.43	1
	16QAM	1	0	22.77	22.71	22.73	1		16QAM	1	0	22.47	22.36	22.43	1
		1	24	22.83	22.72	22.75	1			1	12	22.36	22.35	22.36	1
		1	49	22.69	22.63	22.65	1			1	24	22.40	22.23	22.21	1
		25	0	21.55	21.49	21.53	2			12	0	21.53	21.52	21.44	2
		25	12	21.51	21.46	21.49	2			12	6	21.46	21.45	21.43	2
		25	25	21.46	21.39	21.44	2			12	13	21.46	21.38	21.44	2
		50	0	21.51	21.45	21.49	2			25	0	21.52	21.37	21.40	2
		50	0	21.51	21.45	21.49	2			25	0	21.52	21.37	21.40	2
	64QAM	1	0	21.43	21.39	21.43	2		64QAM	1	0	21.49	21.34	21.47	2
		1	24	21.44	21.41	21.33	2			1	12	21.44	21.33	21.33	2
		1	49	21.34	21.28	21.26	2			1	24	21.39	21.28	21.28	2
		25	0	20.50	20.53	20.48	3			12	0	20.46	20.46	20.47	3
		25	12	20.45	20.44	20.43	3			12	6	20.39	20.41	20.39	3
		25	25	20.47	20.34	20.35	3			12	13	20.42	20.34	20.38	3
		50	0	20.46	20.37	20.44	3			25	0	20.45	20.37	20.45	3
		50	0	20.46	20.37	20.44	3			25	0	20.45	20.37	20.45	3
3M	QPSK	1	0	23.49	23.32	23.40	0	1.4M	QPSK	1	0	23.41	23.27	23.40	0
		1	7	23.42	23.28	23.30	0			1	2	23.37	23.26	23.34	0
		1	14	23.30	23.26	23.18	0			1	5	23.29	23.24	23.21	0
		8	0	22.52	22.44	22.47	1			3	0	22.49	22.39	22.37	0
		8	3	22.37	22.36	22.33	1			3	1	22.39	22.35	22.41	0
		8	7	22.34	22.29	22.31	1			3	3	22.38	22.28	22.35	0
		15	0	22.44	22.24	22.36	1			6	0	22.42	22.36	22.47	1
		15	0	22.44	22.24	22.36	1			6	0	22.42	22.36	22.47	1
	16QAM	1	0	22.47	22.30	22.42	1		16QAM	1	0	22.49	22.27	22.37	1
		1	7	22.35	22.31	22.32	1			1	2	22.30	22.29	22.39	1
		1	14	22.37	22.23	22.18	1			1	5	22.21	22.18	22.29	1
		8	0	21.43	21.46	21.48	2			3	0	21.51	21.40	21.43	1
		8	3	21.34	21.38	21.36	2			3	1	21.44	21.36	21.45	1
		8	7	21.30	21.26	21.33	2			3	3	21.38	21.34	21.30	1
		15	0	21.42	21.31	21.41	2			6	0	21.43	21.39	21.46	2
		15	0	21.42	21.31	21.41	2			6	0	21.43	21.39	21.46	2
	64QAM	1	0	21.43	21.33	21.38	2		64QAM	1	0	21.48	21.28	21.35	2
		1	7	21.36	21.34	21.30	2			1	2	21.34	21.30	21.34	2
		1	14	21.35	21.16	21.20	2			1	5	21.28	21.24	21.26	2
		8	0	20.43	20.44	20.43	3			3	0	20.48	20.41	20.37	2
		8	3	20.37	20.45	20.32	3			3	1	20.46	20.38	20.45	2
		8	7	20.40	20.24	20.34	3			3	3	20.32	20.30	20.33	2
		15	0	20.43	20.25	20.40	3			6	0	20.44	20.34	20.39	3
		15	0	20.43	20.25	20.40	3			6	0	20.44	20.34	20.39	3

FCC SAR Test Report

LTE Band 7																	
EUT without Power Reduction (P-Sensor NOT Triggered)																	
BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)	BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)		
		Channel		20850	21100	21350				Channel		20825	21100	21375			
		Frequency (MHz)		2510.0	2535.0	2560.0				Frequency (MHz)		2507.5	2535.0	2562.5			
20M	QPSK	1	0	22.61	22.74	22.73	0	15M	QPSK	1	0	22.43	22.59	22.62	0		
		1	50	22.49	22.69	22.50	0			1	37	22.32	22.56	22.38	0		
		1	99	22.37	22.64	22.39	0			1	74	22.22	22.56	22.35	0		
		50	0	21.58	21.74	21.68	1			36	0	21.41	21.69	21.55	1		
		50	25	21.51	21.73	21.57	1			36	19	21.35	21.58	21.46	1		
		50	50	21.55	21.72	21.59	1			36	39	21.45	21.70	21.43	1		
		100	0	21.59	21.74	21.60	1			75	0	21.51	21.58	21.44	1		
		1	0	21.94	22.06	22.07	1			16QAM	1	0	21.52	21.56	21.65	1	
	1	50	21.81	21.95	21.82	1	1		37		21.35	21.55	21.36	1			
	1	99	21.66	21.93	21.72	1	1		74		21.23	21.62	21.31	1			
	50	0	20.67	20.78	20.71	2	36		0		20.40	20.73	20.50	2			
	50	25	21.61	20.79	20.62	2	36		19		20.36	20.56	20.46	2			
	50	50	20.63	20.72	20.57	2	36		39		20.50	20.72	20.43	2			
	100	0	20.63	20.73	20.56	2	75		0		20.53	20.66	20.43	2			
	64QAM	1	0	20.55	20.67	20.65	2		64QAM		1	0	20.50	20.54	20.64	2	
		1	50	20.44	20.69	20.43	2			1	37	20.37	20.56	20.40	2		
		1	99	20.31	20.62	20.29	2			1	74	20.24	20.56	20.25	2		
		50	0	19.54	19.68	19.64	3			36	0	19.42	19.63	19.59	3		
		50	25	19.50	19.69	19.57	3			36	19	19.36	19.61	19.52	3		
		50	50	19.54	19.72	19.49	3			36	39	19.51	19.71	19.47	3		
		100	0	19.50	19.67	19.57	3			75	0	19.53	19.58	19.44	3		
		EUT with Power Reduction (P-Sensor Triggered)															
	BW	MCS Index	RB Size	RB Offset	Low	Mid	High		3GPP MPR (dB)	BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)
			Channel		20850	21100	21350					Channel		20825	21100	21375	
Frequency (MHz)			2510.0	2535.0	2560.0	Frequency (MHz)		2507.5				2535.0	2562.5				
20M	QPSK	1	0	20.71	20.77	20.62	-	15M	QPSK	1	0	20.62	20.73	20.58	-		
		1	50	20.53	20.59	20.44	-			1	37	20.45	20.59	20.38	-		
		1	99	20.32	20.38	20.23	-			1	74	20.23	20.29	20.20	-		
		50	0	20.65	20.71	20.56	-			36	0	20.55	20.64	20.46	-		
		50	25	20.58	20.64	20.49	-			36	19	20.52	20.60	20.39	-		
		50	50	20.50	20.56	20.41	-			36	39	20.50	20.56	20.31	-		
		100	0	20.59	20.65	20.50	-			75	0	20.54	20.56	20.46	-		
		16QAM	1	0	20.66	20.74	20.54			-	16QAM	1	0	20.63	20.74	20.50	-
	1		50	20.48	20.55	20.42	-		1	37		20.46	20.53	20.27	-		
	1		99	20.24	20.32	20.14	-		1	74		20.18	20.26	20.19	-		
	50		0	20.61	20.71	20.55	-		36	0		20.54	20.67	20.46	-		
	50		25	20.55	20.60	20.42	-		36	19		20.51	20.55	20.35	-		
	50		50	20.41	20.51	20.33	-		36	39		20.45	20.48	20.32	-		
	64QAM	100	0	20.57	20.58	20.42	-		75	0	20.45	20.57	20.43	-			
		1	0	20.63	20.74	20.52	-		64QAM	1	0	20.65	20.64	20.54	-		
		1	50	20.47	20.57	20.44	-			1	37	20.47	20.46	20.38	-		
		1	99	20.31	20.31	20.23	-			1	74	20.23	20.29	20.12	-		
		50	0	20.58	20.66	20.48	-			36	0	20.54	20.69	20.40	-		
		50	25	20.57	20.63	20.41	-			36	19	20.50	20.54	20.39	-		
		50	50	20.48	20.53	20.31	-			36	39	20.46	20.48	20.34	-		
		100	0	20.58	20.63	20.40	-			75	0	20.47	20.58	20.40	-		

FCC SAR Test Report

LTE Band 7															
EUT without Power Reduction (P-Sensor NOT Triggered)															
BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)	BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)
		Channel		20800	21100	21400				Channel		20775	21100	21425	
		Frequency (MHz)		2505.0	2535.0	2565.0				Frequency (MHz)		2502.5	2535.0	2567.5	
10M	QPSK	1	0	22.54	22.62	22.61	0	5M	QPSK	1	0	22.56	22.72	22.64	0
		1	24	22.40	22.68	22.45	0			1	12	22.46	22.63	22.43	0
		1	49	22.25	22.55	22.34	0			1	24	22.27	22.56	22.31	0
		25	0	21.44	21.66	21.59	1			12	0	21.57	21.72	21.68	1
		25	12	21.39	21.63	21.43	1			12	6	21.43	21.72	21.47	1
		25	25	21.54	21.62	21.48	1			12	13	21.54	21.62	21.52	1
		50	0	21.52	21.68	21.52	1			25	0	21.51	21.70	21.55	1
		16QAM	1	0	21.48	21.67	21.65			1	16QAM	1	0	21.51	21.69
	1		24	21.40	21.61	21.40	1		1	12		21.40	21.64	21.42	1
	1		49	21.19	21.52	21.36	1		1	24		21.31	21.61	21.35	1
	25		0	20.51	20.57	20.63	2		12	0		20.54	20.71	20.58	2
	25		12	20.48	20.63	20.48	2		12	6		20.46	20.66	20.56	2
	25		25	20.52	20.60	20.44	2		12	13		20.51	20.68	20.58	2
	50		0	20.46	20.66	20.45	2		25	0		20.52	20.70	20.59	2
	64QAM	1	0	20.54	20.65	20.57	2		64QAM	1	0	20.54	20.73	20.67	2
		1	24	20.34	20.66	20.46	2			1	12	20.43	20.65	20.47	2
		1	49	20.19	20.53	20.39	2			1	24	20.33	20.55	20.29	2
		25	0	19.52	19.61	19.59	3			12	0	19.49	19.73	19.68	3
		25	12	19.40	19.62	19.47	3			12	6	19.48	19.74	19.48	3
		25	25	19.53	19.66	19.44	3			12	13	19.55	19.68	19.56	3
		50	0	19.46	19.69	19.48	3			25	0	19.53	19.70	19.53	3
		50	0	19.46	19.69	19.48	3			25	0	19.53	19.70	19.53	3

EUT with Power Reduction (P-Sensor Triggered)															
BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)	BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)
		Channel		20800	21100	21400				Channel		20775	21100	21425	
		Frequency (MHz)		2505.0	2535.0	2565.0				Frequency (MHz)		2502.5	2535.0	2567.5	
10M	QPSK	1	0	20.63	20.75	20.44	-	5M	QPSK	1	0	20.69	20.57	20.32	-
		1	24	20.38	20.45	20.34	-			1	12	20.38	20.51	20.30	-
		1	49	20.24	20.34	20.20	-			1	24	20.27	20.33	20.20	-
		25	0	20.48	20.49	20.44	-			12	0	20.46	20.57	20.36	-
		25	12	20.40	20.59	20.40	-			12	6	20.43	20.50	20.31	-
		25	25	20.41	20.40	20.24	-			12	13	20.34	20.47	20.31	-
		50	0	20.50	20.43	20.31	-			25	0	20.42	20.54	20.23	-
		16QAM	1	0	20.51	20.63	20.33			-	16QAM	1	0	20.69	20.66
	1		24	20.47	20.43	20.28	-		1	12		20.32	20.27	20.19	-
	1		49	20.13	20.12	20.08	-		1	24		20.21	20.18	19.99	-
	25		0	20.54	20.52	20.45	-		12	0		20.54	20.51	20.39	-
	25		12	20.40	20.51	20.31	-		12	6		20.48	20.38	20.39	-
	25		25	20.37	20.42	20.23	-		12	13		20.25	20.34	20.26	-
	50		0	20.45	20.45	20.26	-		25	0		20.38	20.57	20.40	-
	64QAM	1	0	20.55	20.65	20.47	-		64QAM	1	0	20.64	20.62	20.36	-
		1	24	20.34	20.33	20.31	-			1	12	20.32	20.40	20.28	-
		1	49	20.16	20.29	20.03	-			1	24	20.11	20.20	19.99	-
		25	0	20.45	20.47	20.43	-			12	0	20.48	20.61	20.27	-
		25	12	20.33	20.51	20.25	-			12	6	20.25	20.39	20.36	-
		25	25	20.29	20.42	20.28	-			12	13	20.29	20.37	20.24	-
		50	0	20.48	20.48	20.37	-			25	0	20.35	20.42	20.23	-
		50	0	20.48	20.48	20.37	-			25	0	20.35	20.42	20.23	-

FCC SAR Test Report

LTE Band 12															
EUT without Power Reduction (P-Sensor NOT Triggered)															
BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)	BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)
		Channel		23060	23095	23130				Channel		23035	23095	23155	
		Frequency (MHz)		704.0	707.5	711.0				Frequency (MHz)		701.5	707.5	713.5	
10M	QPSK	1	0	23.57	23.62	23.60	0	5M	QPSK	1	0	23.53	23.61	23.54	0
		1	24	23.45	23.52	23.50	0			1	12	23.45	23.46	23.46	0
		1	49	23.40	23.52	23.44	0			1	24	23.36	23.45	23.37	0
		25	0	22.52	22.59	22.54	1			12	0	22.50	22.53	22.53	1
		25	12	22.51	22.57	22.53	1			12	6	22.50	22.51	22.47	1
		25	25	22.43	22.50	22.47	1			12	13	22.40	22.45	22.45	1
		50	0	22.44	22.57	22.55	1			25	0	22.44	22.51	22.46	1
		1	0	22.75	22.71	22.80	1			16QAM	1	0	22.57	22.62	22.52
	1	24	22.74	22.71	22.72	1	1		12		22.37	22.47	22.42	1	
	1	49	22.77	22.60	22.60	1	1		24		22.34	22.47	22.34	1	
	25	0	21.59	21.53	21.59	2	12		0		21.49	21.51	21.50	2	
	25	12	21.54	21.62	21.54	2	12		6		21.46	21.58	21.50	2	
	25	25	21.50	21.47	21.46	2	12		13		21.36	21.44	21.46	2	
	50	0	21.54	21.57	21.53	2	25		0		21.35	21.56	21.47	2	
	64QAM	1	0	21.49	21.56	21.56	2		64QAM		1	0	21.57	21.62	21.52
		1	24	21.31	21.40	21.36	2			1	12	21.43	21.49	21.48	2
		1	49	21.35	21.36	21.42	2			1	24	21.31	21.51	21.35	2
		25	0	20.48	20.52	20.40	3			12	0	20.49	20.55	20.47	3
		25	12	20.48	20.47	20.42	3			12	6	20.50	20.49	20.51	3
		25	25	20.35	20.42	20.41	3			12	13	20.43	20.50	20.42	3
		50	0	20.25	20.49	20.41	3			25	0	20.44	20.52	20.55	3

EUT with Power Reduction (P-Sensor Triggered)															
BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)	BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)
		Channel		23060	23095	23130				Channel		23035	23095	23155	
		Frequency (MHz)		704.0	707.5	711.0				Frequency (MHz)		701.5	707.5	713.5	
10M	QPSK	1	0	21.89	21.94	21.88	-	5M	QPSK	1	0	21.88	21.86	21.87	-
		1	24	21.74	21.79	21.73	-			1	12	21.69	21.78	21.70	-
		1	49	21.63	21.68	21.62	-			1	24	21.56	21.65	21.61	-
		25	0	21.79	21.84	21.78	-			12	0	21.78	21.84	21.74	-
		25	12	21.78	21.83	21.77	-			12	6	21.72	21.81	21.76	-
		25	25	21.74	21.79	21.73	-			12	13	21.66	21.78	21.66	-
		50	0	21.83	21.88	21.82	-			25	0	21.81	21.84	21.72	-
		16QAM	1	0	21.81	21.89	21.85			-	16QAM	1	0	21.85	21.89
	1		24	21.67	21.78	21.70	-		1	12		21.66	21.73	21.60	-
	1		49	21.56	21.63	21.53	-		1	24		21.48	21.59	21.57	-
	25		0	21.76	21.74	21.68	-		12	0		21.77	21.75	21.65	-
	25		12	21.73	21.74	21.70	-		12	6		21.68	21.82	21.72	-
	25		25	21.66	21.74	21.64	-		12	13		21.66	21.70	21.63	-
	50		0	21.74	21.84	21.74	-		25	0		21.72	21.80	21.71	-
	64QAM		1	0	21.89	21.84	21.79		-	64QAM		1	0	21.84	21.82
		1	24	21.68	21.69	21.67	-		1		12	21.71	21.77	21.69	-
		1	49	21.58	21.58	21.59	-		1		24	21.46	21.57	21.51	-
		25	0	21.74	21.77	21.76	-		12		0	21.70	21.78	21.72	-
		25	12	21.68	21.81	21.72	-		12		6	21.67	21.69	21.68	-
		25	25	21.74	21.75	21.65	-		12		13	21.63	21.63	21.57	-
		50	0	21.73	21.85	21.80	-		25		0	21.72	21.74	21.68	-

FCC SAR Test Report

LTE Band 12															
EUT without Power Reduction (P-Sensor NOT Triggered)															
BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)	BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)
		Channel		23025	23095	23165				Channel		23017	23095	23173	
		Frequency (MHz)		700.5	707.5	714.5				Frequency (MHz)		699.7	707.5	715.3	
3M	QPSK	1	0	23.49	23.51	23.55	0	1.4M	QPSK	1	0	23.44	23.54	23.51	0
		1	7	23.30	23.42	23.49	0			1	2	23.30	23.43	23.38	0
		1	14	23.27	23.35	23.38	0			1	5	23.29	23.40	23.33	0
		8	0	22.44	22.45	22.43	1			3	0	22.43	22.55	22.46	0
		8	3	22.40	22.51	22.40	1			3	1	22.35	22.58	22.40	0
		8	7	22.30	22.33	22.38	1			3	3	22.40	22.34	22.39	0
		15	0	22.33	22.56	22.38	1			6	0	22.30	22.49	22.37	1
	16QAM	1	0	22.44	22.50	22.56	1		16QAM	1	0	22.42	22.58	22.53	1
		1	7	22.25	22.44	22.50	1			1	2	22.33	22.40	22.37	1
		1	14	22.24	22.40	22.38	1			1	5	22.21	22.47	22.33	1
		8	0	21.44	21.42	21.39	2			3	0	21.36	21.53	21.41	1
		8	3	21.46	21.46	21.45	2			3	1	21.39	21.56	21.36	1
		8	7	21.30	21.41	21.34	2			3	3	21.33	21.35	21.40	1
		15	0	21.31	21.54	21.38	2			6	0	21.30	21.48	21.40	2
	64QAM	1	0	21.49	21.49	21.57	2		64QAM	1	0	21.47	21.56	21.51	2
		1	7	21.35	21.40	21.44	2			1	2	21.31	21.47	21.40	2
		1	14	21.28	21.44	21.31	2			1	5	21.26	21.42	21.35	2
		8	0	20.47	20.45	20.38	3			3	0	20.35	20.55	20.46	2
		8	3	20.44	20.54	20.45	3			3	1	20.43	20.57	20.34	2
		8	7	20.28	20.35	20.38	3			3	3	20.39	20.32	20.41	2
		15	0	20.35	20.53	20.42	3			6	0	20.39	20.44	20.37	3

EUT with Power Reduction (P-Sensor Triggered)															
BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)	BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)
		Channel		23025	23095	23165				Channel		23017	23095	23173	
		Frequency (MHz)		700.5	707.5	714.5				Frequency (MHz)		699.7	707.5	715.3	
3M	QPSK	1	0	21.84	21.87	21.74	-	1.4M	QPSK	1	0	21.84	21.80	21.65	-
		1	7	21.52	21.56	21.55	-			1	2	21.59	21.60	21.55	-
		1	14	21.46	21.50	21.50	-			1	5	21.47	21.58	21.40	-
		8	0	21.61	21.72	21.68	-			3	0	21.73	21.71	21.62	-
		8	3	21.60	21.74	21.57	-			3	1	21.61	21.74	21.61	-
		8	7	21.57	21.67	21.59	-			3	3	21.57	21.72	21.56	-
		15	0	21.73	21.73	21.70	-			6	0	21.77	21.76	21.72	-
	16QAM	1	0	21.72	21.80	21.71	-		16QAM	1	0	21.73	21.78	21.72	-
		1	7	21.62	21.62	21.53	-			1	2	21.62	21.64	21.66	-
		1	14	21.32	21.46	21.44	-			1	5	21.42	21.54	21.47	-
		8	0	21.47	21.54	21.61	-			3	0	21.63	21.72	21.65	-
		8	3	21.62	21.79	21.56	-			3	1	21.67	21.65	21.55	-
		8	7	21.63	21.61	21.63	-			3	3	21.58	21.50	21.53	-
		15	0	21.65	21.74	21.71	-			6	0	21.66	21.77	21.58	-
	64QAM	1	0	21.83	21.78	21.63	-		64QAM	1	0	21.68	21.76	21.72	-
		1	7	21.47	21.70	21.64	-			1	2	21.65	21.65	21.49	-
		1	14	21.45	21.40	21.52	-			1	5	21.42	21.52	21.39	-
		8	0	21.54	21.62	21.61	-			3	0	21.71	21.74	21.56	-
		8	3	21.66	21.62	21.65	-			3	1	21.60	21.70	21.71	-
		8	7	21.54	21.66	21.53	-			3	3	21.62	21.69	21.50	-
		15	0	21.62	21.75	21.66	-			6	0	21.61	21.69	21.76	-

FCC SAR Test Report

LTE Band 13																			
BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)	BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)				
		Channel								23230	Channel					23205	23230	23225	
		Frequency (MHz)								782.0	Frequency (MHz)					779.5	782.0	784.5	
10M	QPSK	1	0		23.59		0	5M	QPSK	1	0	23.53	23.55	23.53	0				
		1	24		23.51		0			1	12	23.41	23.45	23.44	0				
		1	49		23.68		0			1	24	23.36	23.43	23.36	0				
		25	0		22.54		1			12	0	22.45	22.51	22.47	1				
		25	12		22.49		1			12	6	22.39	22.48	22.46	1				
		25	25		22.57		1			12	13	22.50	22.56	22.52	1				
		50	0		22.51		1			25	0	22.49	22.41	22.41	1				
	16QAM	1	0		22.85		1		16QAM	1	0	22.52	22.47	22.56	1				
		1	24		22.69		1			1	12	22.38	22.41	22.45	1				
		1	49		22.67		1			1	24	22.40	22.38	22.37	1				
		25	0		21.59		2			12	0	21.49	21.44	21.49	2				
		25	12		21.58		2			12	6	21.42	21.48	21.40	2				
		25	25		21.51		2			12	13	21.54	21.52	21.50	2				
		50	0		21.54		2			25	0	21.43	21.42	21.48	2				
	64QAM	1	0		21.48		2		64QAM	1	0	21.56	21.52	21.47	2				
		1	24		21.40		2			1	12	21.36	21.41	21.38	2				
		1	49		21.37		2			1	24	21.44	21.43	21.46	2				
		25	0		20.53		3			12	0	20.53	20.53	20.50	3				
		25	12		20.41		3			12	6	20.41	20.49	20.49	3				
		25	25		20.53		3			12	13	20.52	20.48	20.49	3				
		50	0		20.43		3			25	0	20.48	20.45	20.49	3				

LTE Band 14															
BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)	BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)
		Channel								23330					
		Frequency (MHz)								793.0					
10M	QPSK	1	0		23.53		0	5M	QPSK	1	0	23.33	23.41	23.33	0
		1	24		23.57		0			1	12	23.40	23.46	23.36	0
		1	49		23.65		0			1	24	23.36	23.46	23.36	0
		25	0		22.42		1			12	0	22.35	22.36	22.35	1
		25	12		22.50		1			12	6	22.33	22.43	22.37	1
		25	25		22.54		1			12	13	22.37	22.53	22.39	1
		50	0		22.44		1			25	0	22.43	22.43	22.41	1
		16QAM	1	0		22.73				1	16QAM	1	0	22.33	22.41
	1		24		22.69		1		1	12		22.40	22.44	22.39	1
	1		49		22.75		1		1	24		22.35	22.50	22.36	1
	25		0		21.44		2		12	0		21.29	21.33	21.38	2
	25		12		21.53		2		12	6		21.39	21.40	21.44	2
	25		25		21.57		2		12	13		21.42	21.52	21.46	2
	50		0		21.52		2		25	0		21.43	21.41	21.34	2
	64QAM		1	0		21.35			2	64QAM		1	0	21.40	21.39
		1	24		21.40		2		1		12	21.32	21.43	21.36	2
		1	49		21.46		2		1		24	21.35	21.40	21.41	2
		25	0		20.25		3		12		0	20.36	20.37	20.34	3
		25	12		20.40		3		12		6	20.38	20.49	20.36	3
		25	25		20.38		3		12		13	20.44	20.50	20.39	3
		50	0		20.36		3		25		0	20.37	20.40	20.36	3

FCC SAR Test Report

LTE Band 26															
BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)	BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)
		Channel		26765	26865	26965				Channel		26740	26865	26990	
		Frequency (MHz)		821.5	831.5	841.5				Frequency (MHz)		819.0	831.5	844.0	
15M	QPSK	1	0	23.51	23.55	23.63	0	10M	QPSK	1	0	23.42	23.48	23.57	0
		1	37	23.46	23.48	23.57	0			1	24	23.47	23.51	23.59	0
		1	74	23.47	23.49	23.51	0			1	49	23.44	23.42	23.46	0
		36	0	22.49	22.50	22.62	1			25	0	22.45	22.50	22.56	1
		36	19	22.50	22.55	22.59	1			25	12	22.45	22.47	22.52	1
		36	39	22.49	22.53	22.55	1			25	25	22.43	22.48	22.52	1
		75	0	22.46	22.50	22.58	1			50	0	22.36	22.44	22.58	1
	16QAM	1	0	22.71	22.78	22.86	1		16QAM	1	0	22.43	22.43	22.47	1
		1	37	22.98	22.89	22.79	1			1	24	22.51	22.45	22.61	1
		1	74	22.89	22.74	22.89	1			1	49	22.40	22.41	22.50	1
		36	0	21.45	21.48	21.60	2			25	0	21.44	21.44	21.58	2
		36	19	21.57	21.58	21.51	2			25	12	21.40	21.50	21.51	2
		36	39	21.56	21.55	21.49	2			25	25	21.40	21.45	21.49	2
		75	0	21.55	21.57	21.49	2			50	0	21.40	21.44	21.58	2
	64QAM	1	0	21.38	21.46	21.53	2		64QAM	1	0	21.36	21.44	21.48	2
		1	37	21.44	21.51	21.56	2			1	24	21.42	21.45	21.59	2
		1	74	21.41	21.43	21.48	2			1	49	21.38	21.42	21.41	2
		36	0	20.47	20.44	20.60	3			25	0	20.49	20.45	20.57	3
		36	19	20.48	20.48	20.49	3			25	12	20.46	20.52	20.58	3
		36	39	20.40	20.44	20.45	3			25	25	20.47	20.50	20.45	3
		75	0	20.41	20.43	20.52	3			50	0	20.37	20.44	20.58	3
BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)	BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)
		Channel		26715	26865	27015				Channel		26705	26865	27025	
		Frequency (MHz)		816.5	831.5	846.5				Frequency (MHz)		815.5	831.5	847.5	
5M	QPSK	1	0	23.35	23.48	23.46	0	3M	QPSK	1	0	23.33	23.42	23.43	0
		1	12	23.39	23.49	23.57	0			1	7	23.39	23.37	23.54	0
		1	24	23.44	23.41	23.43	0			1	14	23.46	23.38	23.39	0
		12	0	22.33	22.38	22.48	1			8	0	22.36	22.39	22.42	1
		12	6	22.34	22.45	22.46	1			8	3	22.34	22.50	22.42	1
		12	13	22.42	22.40	22.52	1			8	7	22.34	22.40	22.42	1
		25	0	22.33	22.48	22.44	1			15	0	22.32	22.35	22.49	1
	16QAM	1	0	22.41	22.41	22.45	1		16QAM	1	0	22.31	22.41	22.50	1
		1	12	22.40	22.54	22.54	1			1	7	22.37	22.42	22.50	1
		1	24	22.43	22.38	22.39	1			1	14	22.37	22.42	22.46	1
		12	0	21.34	21.39	21.43	2			8	0	21.36	21.42	21.43	2
		12	6	21.35	21.44	21.51	2			8	3	21.36	21.50	21.49	2
		12	13	21.44	21.46	21.49	2			8	7	21.38	21.46	21.44	2
		25	0	21.37	21.48	21.41	2			15	0	21.41	21.39	21.51	2
	64QAM	1	0	21.43	21.46	21.49	2		64QAM	1	0	21.29	21.37	21.44	2
		1	12	21.35	21.45	21.51	2			1	7	21.33	21.44	21.53	2
		1	24	21.36	21.41	21.46	2			1	14	21.37	21.36	21.41	2
		12	0	20.30	20.35	20.51	3			8	0	20.39	20.44	20.47	3
		12	6	20.44	20.43	20.44	3			8	3	20.38	20.54	20.41	3
		12	13	20.43	20.49	20.55	3			8	7	20.37	20.39	20.39	3
		25	0	20.34	20.48	20.41	3			15	0	20.31	20.32	20.53	3
BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)	BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)
		Channel		26697	26865	27033				Channel		26697	26865	27033	
		Frequency (MHz)		814.7	831.5	848.3				Frequency (MHz)		814.7	831.5	848.3	
1.4M	QPSK	1	0	23.42	23.42	23.44	0		QPSK	1	0	23.42	23.42	23.44	0
		1	2	23.38	23.39	23.51	0			1	2	23.38	23.39	23.51	0
		1	5	23.45	23.38	23.42	0			1	5	23.45	23.38	23.42	0
		3	0	22.46	22.34	22.46	0			3	0	22.46	22.34	22.46	0
		3	1	22.36	22.52	22.43	0			3	1	22.36	22.52	22.43	0
		3	3	22.35	22.50	22.49	0			3	3	22.35	22.50	22.49	0
		6	0	22.36	22.44	22.55	1			6	0	22.36	22.44	22.55	1
	16QAM	1	0	22.34	22.37	22.48	1		16QAM	1	0	22.34	22.37	22.48	1
		1	2	22.37	22.44	22.49	1			1	2	22.37	22.44	22.49	1
		1	5	22.39	22.38	22.43	1			1	5	22.39	22.38	22.43	1
		3	0	21.37	21.42	21.52	1			3	0	21.37	21.42	21.52	1
		3	1	21.31	21.44	21.48	1			3	1	21.31	21.44	21.48	1
		3	3	21.42	21.50	21.44	1			3	3	21.42	21.50	21.44	1
		6	0	21.29	21.45	21.45	2			6	0	21.29	21.45	21.45	2
	64QAM	1	0	21.36	21.39	21.45	2		64QAM	1	0	21.36	21.39	21.45	2
		1	2	21.32	21.36	21.57	2			1	2	21.32	21.36	21.57	2
		1	5	21.36	21.36	21.37	2			1	5	21.36	21.36	21.37	2
		3	0	20.37	20.35	20.47	2			3	0	20.37	20.35	20.47	2
		3	1	20.34	20.43	20.44	2			3	1	20.34	20.43	20.44	2
		3	3	20.35	20.43	20.41	2			3	3	20.35	20.43	20.41	2
		6	0	20.35	20.37	20.45	3			6	0	20.35	20.37	20.45	3

FCC SAR Test Report

LTE Band 41																			
BW	MCS Index	RB Size	RB Offset	Low	Mid	Mid	Mid	High	3GPP MPR (dB)	BW	MCS Index	RB Size	RB Offset	Low	Mid	Mid	Mid	High	3GPP MPR (dB)
		Channel		39750	40185	40620	41055	41490				Channel		39725	40173	40620	41068	41515	
		Frequency (MHz)		2506.0	2549.5	2593.0	2636.5	2680.0				Frequency (MHz)		2503.5	2548.3	2593.0	2637.8	2682.5	
20M	QPSK	1	0	22.49	22.32	22.21	22.24	22.98	0	15M	QPSK	1	0	22.21	22.44	22.24	22.21	22.65	0
		1	50	22.44	22.17	22.16	22.19	22.50	0			1	37	22.13	22.18	22.08	22.18	22.38	0
		1	99	22.48	22.20	22.19	22.12	22.50	0			1	74	22.18	21.87	21.94	22.03	22.26	0
		50	0	21.52	21.25	21.19	21.18	21.57	1			36	0	21.19	21.38	21.26	21.32	21.49	1
		50	25	21.45	21.23	21.16	21.17	21.54	1			36	19	21.27	21.14	21.19	21.29	21.45	1
		50	50	21.45	21.18	21.14	21.12	21.53	1			36	39	21.28	21.07	21.21	21.27	21.39	1
		100	0	21.51	21.19	21.19	21.15	22.24	1			75	0	21.28	21.21	21.22	21.30	21.51	1
		1	0	21.64	21.97	21.73	21.69	21.98	1		16QAM	1	0	21.13	21.45	21.19	21.20	21.69	1
	16QAM	1	50	21.62	21.63	21.65	21.63	21.92	1			1	37	21.12	21.09	21.07	21.26	21.48	1
		1	99	21.36	21.37	21.52	21.57	21.81	1			1	74	21.25	20.90	21.01	21.06	21.27	1
		50	0	20.36	20.58	20.33	20.37	20.67	2			36	0	20.19	20.37	20.26	20.27	20.50	2
		50	25	20.23	20.22	20.29	20.35	20.63	2			36	19	20.19	20.08	20.17	20.24	20.52	2
		50	50	20.12	20.12	20.23	20.32	20.58	2			36	39	20.33	20.12	20.21	20.19	20.44	2
		100	0	20.29	20.31	20.29	20.34	20.61	2			75	0	20.28	20.25	20.18	20.29	20.46	2
	64QAM	1	0	20.17	20.54	20.19	20.19	20.62	2		64QAM	1	0	20.18	20.48	20.18	20.22	20.64	2
		1	50	20.09	20.10	20.14	20.26	20.38	2			1	37	20.11	20.08	20.15	20.25	20.43	2
		1	99	20.24	20.01	20.02	20.04	20.22	2			1	74	20.15	19.83	19.97	20.07	20.30	2
		50	0	19.21	19.34	19.21	19.27	19.51	3			36	0	19.27	19.36	19.17	19.28	19.57	3
		50	25	19.24	19.11	19.22	19.29	19.44	3			36	19	19.22	19.16	19.15	19.24	19.53	3
		50	50	19.32	19.03	19.12	19.28	19.40	3			36	39	19.28	19.07	19.20	19.18	19.40	3
		100	0	19.30	19.27	19.23	19.23	19.51	3			75	0	19.29	19.24	19.23	19.27	19.47	3
		1	0	22.14	22.44	22.24	22.26	22.64	0	10M	QPSK	1	0	22.07	22.35	22.18	22.23	22.70	0
10M	QPSK	1	24	22.09	22.09	22.12	22.26	22.41	0			1	12	22.04	22.07	22.01	22.15	22.34	0
		1	49	22.23	21.81	21.99	22.10	22.22	0			1	24	22.14	21.87	21.97	22.00	22.21	0
		25	0	21.20	21.33	21.18	21.24	21.58	1			12	0	21.21	21.32	21.10	21.21	21.43	1
		25	12	21.27	21.11	21.24	21.24	21.51	1			12	6	21.24	21.06	21.13	21.21	21.43	1
		25	25	21.29	21.13	21.21	21.21	21.40	1			12	13	21.28	20.99	21.20	21.24	21.43	1
		50	0	21.28	21.19	21.25	21.26	21.56	1			25	0	21.29	21.17	21.12	21.20	21.56	1
	16QAM	1	0	21.18	21.50	21.26	21.27	21.69	1		16QAM	1	0	21.06	21.38	21.21	21.23	21.66	1
		1	24	21.11	21.18	21.10	21.19	21.44	1			1	12	21.09	21.07	21.01	21.13	21.36	1
		1	49	21.19	20.85	21.03	21.04	21.24	1			1	24	21.08	20.78	20.98	20.94	21.25	1
		25	0	20.26	20.36	20.18	20.32	20.51	2			12	0	20.27	20.33	20.14	20.24	20.46	2
		25	12	20.21	20.15	20.23	20.29	20.50	2			12	6	20.18	20.02	20.11	20.23	20.42	2
		25	25	20.26	20.08	20.22	20.18	20.39	2			12	13	20.19	19.99	20.16	20.24	20.44	2
		50	0	20.26	20.20	20.20	20.26	20.56	2			25	0	20.29	20.26	20.11	20.12	20.56	2
	64QAM	1	0	20.17	20.50	20.23	20.23	20.63	2		64QAM	1	0	20.09	20.42	20.17	20.23	20.66	2
		1	24	20.19	20.17	20.11	20.22	20.48	2			1	12	20.12	20.00	20.05	20.16	20.30	2
		1	49	20.23	19.81	20.03	20.07	20.22	2			1	24	20.13	19.78	19.95	19.97	20.31	2
		25	0	19.21	19.36	19.25	19.23	19.51	3			12	0	19.20	19.31	19.11	19.30	19.45	3
		25	12	19.25	19.09	19.22	19.25	19.51	3			12	6	19.20	19.07	19.14	19.18	19.37	3
		25	25	19.28	19.12	19.22	19.27	19.49	3			12	13	19.27	18.99	19.18	19.19	19.42	3
		50	0	19.24	19.21	19.21	19.25	19.48	3			25	0	19.21	19.22	19.18	19.17	19.53	3

FCC SAR Test Report

LTE Band 66																	
EUT without Power Reduction (P-Sensor NOT Triggered)																	
BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)	BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)		
		Channel		132072	132322	132572				Channel		132047	132322	132597			
		Frequency (MHz)		1720.0	1745.0	1770.0				Frequency (MHz)		1717.5	1745.0	1772.5			
20M	QPSK	1	0	23.93	23.89	23.85	0	15M	QPSK	1	0	23.92	23.86	23.77	0		
		1	50	23.84	23.80	23.79	0			1	37	23.83	23.78	23.79	0		
		1	99	23.73	23.68	23.54	0			1	74	23.69	23.62	23.46	0		
		50	0	22.92	22.86	22.83	1			36	0	22.91	22.83	22.82	1		
		50	25	22.86	22.84	22.81	1			36	19	22.77	22.81	22.72	1		
		50	50	22.83	22.82	22.78	1			36	39	22.76	22.77	22.68	1		
		100	0	22.85	22.82	22.79	1			75	0	22.78	22.75	22.73	1		
		1	0	23.05	23.23	23.08	1			16QAM	1	0	22.86	22.81	22.84	1	
	1	50	23.09	23.04	23.04	1	1		37		22.84	22.78	22.79	1			
	1	99	23.04	23.01	22.82	1	1		74		22.67	22.67	22.48	1			
	50	0	21.92	21.92	21.87	2	36		0		21.92	21.85	21.79	2			
	50	25	21.92	21.86	21.85	2	36		19		21.78	21.76	21.71	2			
	50	50	21.88	21.83	21.79	2	36		39		21.75	21.80	21.72	2			
	100	0	21.89	21.85	21.82	2	75		0		21.75	21.75	21.76	2			
	64QAM	1	0	21.90	21.84	21.81	2		64QAM		1	0	21.91	21.88	21.76	2	
		1	50	21.84	21.73	21.71	2			1	37	21.79	21.74	21.79	2		
		1	99	21.72	21.58	21.45	2			1	74	21.67	21.66	21.46	2		
		50	0	20.85	20.77	20.78	3			36	0	20.85	20.85	20.74	3		
		50	25	20.83	20.78	20.79	3			36	19	20.83	20.84	20.76	3		
		50	50	20.77	20.81	20.72	3			36	39	20.75	20.82	20.77	3		
		100	0	20.77	20.81	20.72	3			75	0	20.81	20.74	20.74	3		
		EUT with Power Reduction (P-Sensor Triggered)															
	BW	MCS Index	RB Size	RB Offset	Low	Mid	High		3GPP MPR (dB)	BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)
			Channel		132072	132322	132572					Channel		132047	132322	132597	
Frequency (MHz)			1720.0	1745.0	1770.0	Frequency (MHz)		1717.5				1745.0	1772.5				
20M	QPSK	1	0	21.23	21.21	21.22	-	15M	QPSK	1	0	21.11	21.11	21.10	-		
		1	50	20.90	20.88	20.89	-			1	37	20.87	20.88	20.87	-		
		1	99	20.84	20.82	20.83	-			1	74	20.81	20.72	20.78	-		
		50	0	21.04	21.02	21.03	-			36	0	20.94	20.92	21.01	-		
		50	25	21.00	20.98	20.99	-			36	19	20.94	20.92	20.99	-		
		50	50	20.88	20.86	20.87	-			36	39	20.84	20.81	20.86	-		
		100	0	21.03	21.01	21.02	-			75	0	21.00	21.01	20.98	-		
		1	0	21.09	21.04	21.09	-			16QAM	1	0	20.93	21.04	21.05	-	
	1	50	20.84	20.87	20.86	-	1		37		20.83	20.85	20.83	-			
	1	99	20.77	20.81	20.78	-	1		74		20.64	20.77	20.69	-			
	50	0	20.98	20.99	21.00	-	36		0		20.89	20.94	20.96	-			
	50	25	20.91	20.95	20.91	-	36		19		20.89	20.88	20.89	-			
	50	50	20.78	20.76	20.78	-	36		39		20.74	20.76	20.67	-			
	100	0	20.93	20.97	20.96	-	75		0		20.93	20.98	20.91	-			
	64QAM	1	0	21.07	21.09	21.11	-		64QAM		1	0	21.11	20.97	21.01	-	
		1	50	20.90	20.82	20.85	-			1	37	20.77	20.85	20.76	-		
		1	99	20.80	20.79	20.74	-			1	74	20.74	20.69	20.68	-		
		50	0	20.95	20.96	20.97	-			36	0	20.97	20.91	20.96	-		
		50	25	20.95	20.91	20.98	-			36	19	20.95	20.97	20.85	-		
		50	50	20.82	20.77	20.83	-			36	39	20.72	20.69	20.70	-		
		100	0	20.96	20.99	20.97	-			75	0	20.92	20.85	20.98	-		

FCC SAR Test Report

LTE Band 66																	
EUT without Power Reduction (P-Sensor NOT Triggered)																	
BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)	BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)		
		Channel		132022	132322	132622				Channel		131997	132322	132647			
		Frequency (MHz)		1715.0	1745.0	1775.0				Frequency (MHz)		1712.5	1745.0	1777.5			
10M	QPSK	1	0	23.81	23.72	23.73	0	5M	QPSK	1	0	23.86	23.78	23.76	0		
		1	24	23.74	23.74	23.73	0			1	12	23.70	23.67	23.74	0		
		1	49	23.70	23.64	23.44	0			1	24	23.66	23.60	23.41	0		
		25	0	22.81	22.78	22.77	1			12	0	22.81	22.78	22.79	1		
		25	12	22.70	22.77	22.70	1			12	6	22.68	22.71	22.74	1		
		25	25	22.75	22.74	22.68	1			12	13	22.70	22.74	22.65	1		
		50	0	22.78	22.74	22.66	1			25	0	22.70	22.71	22.78	1		
	16QAM	1	0	22.83	22.73	22.70	1		16QAM	1	0	22.84	22.80	22.82	1		
		1	24	22.76	22.69	22.70	1			1	12	22.67	22.74	22.73	1		
		1	49	22.69	22.57	22.45	1			1	24	22.60	22.63	22.41	1		
		25	0	21.86	21.76	21.76	2			12	0	21.87	21.77	21.77	2		
		25	12	21.67	21.69	21.67	2			12	6	21.68	21.76	21.75	2		
		25	25	21.74	21.72	21.67	2			12	13	21.70	21.76	21.62	2		
		50	0	21.78	21.73	21.66	2			25	0	21.73	21.65	21.69	2		
	64QAM	1	0	21.81	21.72	21.72	2		64QAM	1	0	21.83	21.71	21.75	2		
		1	24	21.73	21.71	21.69	2			1	12	21.68	21.65	21.65	2		
		1	49	21.70	21.61	21.45	2			1	24	21.59	21.62	21.41	2		
		25	0	20.81	20.78	20.69	3			12	0	20.82	20.68	20.74	3		
		25	12	20.75	20.70	20.73	3			12	6	20.69	20.75	20.71	3		
		25	25	20.80	20.76	20.66	3			12	13	20.69	20.79	20.62	3		
		50	0	20.74	20.80	20.68	3			25	0	20.68	20.71	20.73	3		
	EUT with Power Reduction (P-Sensor Triggered)																
	BW	MCS Index	RB Size	RB Offset	Low	Mid	High		3GPP MPR (dB)	BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)
			Channel		132022	132322	132622					Channel		131997	132322	132647	
Frequency (MHz)			1715.0	1745.0	1775.0	Frequency (MHz)		1712.5				1745.0	1777.5				
10M	QPSK	1	0	20.91	20.97	21.04	-	5M	QPSK	1	0	20.93	20.92	20.88	-		
		1	24	20.79	20.86	20.65	-			1	12	20.66	20.82	20.71	-		
		1	49	20.67	20.68	20.73	-			1	24	20.70	20.79	20.61	-		
		25	0	20.83	20.85	20.91	-			12	0	20.85	20.93	20.78	-		
		25	12	20.76	20.95	20.77	-			12	6	20.87	20.89	20.78	-		
		25	25	20.77	20.81	20.82	-			12	13	20.70	20.68	20.62	-		
		50	0	20.92	20.96	20.98	-			25	0	20.93	20.88	20.79	-		
	16QAM	1	0	20.88	20.90	20.96	-		16QAM	1	0	20.89	20.83	20.94	-		
		1	24	20.63	20.68	20.70	-			1	12	20.60	20.72	20.61	-		
		1	49	20.75	20.69	20.74	-			1	24	20.68	20.57	20.64	-		
		25	0	20.98	20.91	20.84	-			12	0	20.78	20.94	20.84	-		
		25	12	20.71	20.72	20.90	-			12	6	20.77	20.82	20.91	-		
		25	25	20.73	20.77	20.77	-			12	13	20.79	20.59	20.77	-		
		50	0	20.87	20.74	20.95	-			25	0	20.85	20.78	20.84	-		
	64QAM	1	0	20.89	20.82	20.85	-		64QAM	1	0	20.94	21.09	20.95	-		
		1	24	20.74	20.75	20.66	-			1	12	20.57	20.71	20.73	-		
		1	49	20.68	20.56	20.57	-			1	24	20.74	20.55	20.67	-		
		25	0	20.84	20.90	20.94	-			12	0	20.85	20.83	20.80	-		
		25	12	20.83	20.82	20.97	-			12	6	20.80	20.74	20.83	-		
		25	25	20.66	20.67	20.71	-			12	13	20.68	20.64	20.73	-		
		50	0	20.88	20.89	20.90	-			25	0	20.80	20.73	20.77	-		

FCC SAR Test Report

LTE Band 66															
EUT without Power Reduction (P-Sensor NOT Triggered)															
BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)	BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)
		Channel		131987	132322	132657				Channel		131979	132322	132665	
		Frequency (MHz)		1711.5	1745.5	1778.5				Frequency (MHz)		1710.7	1745.0	1779.3	
3M	QPSK	1	0	23.86	23.86	23.73	0	1.4M	QPSK	1	0	23.75	23.83	23.77	0
		1	7	23.82	23.63	23.65	0			1	2	23.71	23.68	23.66	0
		1	14	23.61	23.56	23.46	0			1	5	23.68	23.62	23.44	0
		8	0	22.80	22.73	22.76	1			3	0	22.79	22.77	22.79	0
		8	3	22.75	22.71	22.62	1			3	1	22.78	22.70	22.68	0
		8	7	22.77	22.75	22.78	1			3	3	22.83	22.64	22.67	0
	16QAM	15	0	22.72	22.66	22.68	1		6	0	22.78	22.72	22.73	1	
		1	0	22.82	22.89	22.75	1		16QAM	1	0	22.80	22.79	22.84	1
		1	7	22.77	22.62	22.68	1			1	2	22.81	22.71	22.73	1
		1	14	22.67	22.60	22.44	1			1	5	22.65	22.62	22.50	1
		8	0	21.79	21.75	21.71	2			3	0	21.79	21.75	21.75	1
		8	3	21.81	21.75	21.72	2			3	1	21.73	21.73	21.68	1
	64QAM	8	7	21.76	21.78	21.73	2			3	3	21.80	21.74	21.74	1
		15	0	21.75	21.67	21.64	2		6	0	21.76	21.77	21.74	2	
		1	0	21.82	21.89	21.75	2		64QAM	1	0	21.73	21.78	21.84	2
		1	7	21.81	21.62	21.60	2			1	2	21.81	21.68	21.68	2
		1	14	21.64	21.58	21.49	2			1	5	21.63	21.58	21.48	2
		8	0	20.73	20.79	20.73	3			3	0	20.79	20.76	20.79	2
		8	3	20.77	20.68	20.68	3			3	1	20.75	20.73	20.71	2
		8	7	20.75	20.72	20.73	3			3	3	20.79	20.68	20.74	2
		15	0	20.73	20.69	20.70	3			6	0	20.75	20.76	20.65	3

EUT with Power Reduction (P-Sensor Triggered)															
BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)	BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)
		Channel		131987	132322	132657				Channel		131979	132322	132665	
		Frequency (MHz)		1711.5	1745.5	1778.5				Frequency (MHz)		1710.7	1745.0	1779.3	
3M	QPSK	1	0	20.90	20.97	20.90	-	1.4M	QPSK	1	0	21.04	20.90	21.02	-
		1	7	20.69	20.84	20.73	-			1	2	20.80	20.70	20.80	-
		1	14	20.74	20.71	20.65	-			1	5	20.67	20.68	20.77	-
		8	0	20.92	20.86	21.00	-			3	0	20.98	20.84	20.84	-
		8	3	20.85	20.79	20.83	-			3	1	20.88	20.81	20.89	-
		8	7	20.86	20.81	20.72	-			3	3	20.73	20.73	20.76	-
	16QAM	15	0	20.98	20.87	20.85	-		6	0	20.98	20.86	20.92	-	
		1	0	20.87	20.94	20.99	-		16QAM	1	0	20.85	20.89	20.86	-
		1	7	20.88	20.59	20.70	-			1	2	20.72	20.67	20.70	-
		1	14	20.65	20.56	20.56	-			1	5	20.61	20.59	20.57	-
		8	0	20.92	20.84	20.89	-			3	0	20.87	20.81	20.97	-
		8	3	20.86	20.71	20.82	-			3	1	20.90	20.82	20.78	-
	64QAM	8	7	20.76	20.69	20.71	-			3	3	20.81	20.66	20.74	-
		15	0	20.93	20.84	20.83	-		6	0	20.73	20.78	20.86	-	
		1	0	20.97	20.91	20.85	-		64QAM	1	0	20.93	21.09	20.84	-
		1	7	20.73	20.79	20.70	-			1	2	20.69	20.67	20.73	-
		1	14	20.63	20.57	20.66	-			1	5	20.56	20.71	20.65	-
		8	0	20.83	20.84	20.83	-			3	0	20.88	20.74	20.94	-
		8	3	20.81	20.90	20.82	-			3	1	20.85	20.67	20.77	-
		8	7	20.66	20.84	20.78	-			3	3	20.76	20.57	20.63	-
		15	0	20.91	20.81	20.79	-			6	0	20.86	20.84	20.83	-

FCC SAR Test Report

<WLAN 2.4G>

Mode	Channel	Frequency (MHz)	Average Power (Ant-0)	Average Power (Ant-1)	Average Power (Ant-0 + Ant-1)
802.11b	1	2412	17.98	14.96	N/A
	6	2437	17.92	14.93	N/A
	11	2462	17.93	14.95	N/A
802.11n (HT20)	1	2412	-	-	18.48
	6	2437	-	-	18.44
	11	2462	-	-	18.45

<WLAN 5.3G>

Mode	Channel	Frequency (MHz)	Average Power (Ant-0)	Average Power (Ant-1)	Average Power (Ant-0 + Ant-1)
802.11n (HT40)	54	5270	18.93	13.41	15.45
	62	5310	18.97	13.49	15.46

<WLAN 5.6G>

Mode	Channel	Frequency (MHz)	Average Power (Ant-0)	Average Power (Ant-1)	Average Power (Ant-0 + Ant-1)
802.11n (HT40)	102	5510	18.45	11.94	15.47
	110	5550	18.42	11.96	15.45
	118	5590	18.41	11.93	15.47
	126	5630	18.44	11.95	15.44
	134	5670	18.42	11.98	15.49
	142	5710	18.44	11.96	15.48

<WLAN 5.8G>

Mode	Channel	Frequency (MHz)	Average Power (Ant-0)	Average Power (Ant-1)	Average Power (Ant-0 + Ant-1)
802.11n (HT40)	151	5755	18.43	11.92	14.49
	159	5795	18.48	11.95	14.45

<Bluetooth>

Mode	Channel	Frequency (MHz)	Average Power
Bluetooth EDR	0	2402	11.55
	39	2441	11.38
	78	2480	11.25
LE	0	2402	4.86
	19	2440	4.92
	39	2480	4.89

FCC SAR Test Report

4.7 SAR Testing Results

4.7.1 SAR Test Reduction Considerations

<KDB 447498 D01, General RF Exposure Guidance>

Testing of other required channels within the operating mode of a frequency band is not required when the reported SAR for the mid-band or highest output power channel is:

- (1) ≤ 0.8 W/kg or 2.0 W/kg, for 1-g or 10-g respectively, when the transmission band is ≤ 100 MHz
- (2) ≤ 0.6 W/kg or 1.5 W/kg, for 1-g or 10-g respectively, when the transmission band is between 100 MHz and 200 MHz
- (3) ≤ 0.4 W/kg or 1.0 W/kg, for 1-g or 10-g respectively, when the transmission band is ≥ 200 MHz

When SAR is not measured at the maximum power level allowed for production units, the measured SAR will be scaled to the maximum tune-up tolerance limit to determine compliance. The scaling factor for the tune-up power is defined as maximum tune-up limit (mW) / measured conducted power (mW). The reported SAR would be calculated by measured SAR x tune-up power scaling factor.

The SAR has been measured with highest transmission duty factor supported by the test mode tools for WLAN and/or Bluetooth. When the transmission duty factor could not achieve 100%, the reported SAR will be scaled to 100% transmission duty factor to determine compliance at the maximum tune-up power. The scaling factor for the duty factor is defined as 100% / transmission duty cycle (%). The reported SAR would be calculated by measured SAR x tune-up power scaling factor x duty cycle scaling factor.

<KDB 941225 D05, SAR Evaluation Considerations for LTE Devices>

(1) QPSK with 1 RB and 50% RB allocation

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

(2) QPSK with 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 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.

(3) Higher order modulations

SAR is required only when the highest maximum output power for the configuration in the higher order modulation is $> 1/2$ dB higher than the same configuration in QPSK or when the reported SAR for the QPSK configuration is > 1.45 W/kg.

(4) Other channel bandwidth

SAR is required when the highest maximum output power of the smaller channel bandwidth is $> 1/2$ dB higher than the equivalent channel configurations in the largest channel bandwidth configuration or the reported SAR of a configuration for the largest channel bandwidth is > 1.45 W/kg.

FCC SAR Test Report

<Power Confirmation for SAR Test Exclusion for LTE Downlink CA>

According to KDB 941225 D05A, the uplink maximum output power below was measured with downlink CA active on the channel with highest measured maximum output power when downlink CA is inactive. The downlink SCC channel was paired with the uplink channel as normal operation. For intra-band contiguous CA, the downlink channel spacing between the component carriers was set to multiple of 300 kHz less than the nominal channel spacing per section 5.4.1A of 3GPP TS36.521. For intra-band non-contiguous CA, the downlink channel spacing between the component carriers was set to maximum separation from PCC and remain fully within the downlink transmission band. For Inter-band CA, the SCC downlink channel was set to near the middle of its transmission band.

Power Measurements Laptop Mode for Intra-Band Contiguous Downlink CA

CA Combination	PCC								SCC1				SCC2				Power	
	LTE Band	BW (MHz)	UL Ch	UL Freq. (MHz)	RB Size	RB Offset	DL Ch	DL Freq. (MHz)	LTE Band	BW (MHz)	DL Ch	DL Freq. (MHz)	LTE Band	BW (MHz)	DL Ch	DL Freq. (MHz)	Single Carrier Tx Power (dBm)	Tx Power with DL-CA Active (dBm)
CA_41D	41	20	41490	2680	1	0	41094	2640.4	41	20	41292	2660.2	41	20	41094	2640.4	22.98	22.87

Power Measurements Laptop Mode for Inter-Band Contiguous Downlink CA(Two Band)

CA Combination	PCC								SCC1				Power	
	LTE Band	BW (MHz)	UL Ch	UL Freq. (MHz)	RB Size	RB Offset	DL Ch	DL Freq. (MHz)	LTE Band	BW (MHz)	DL Ch	DL Freq. (MHz)	Single Carrier Tx Power (dBm)	Tx Power with DL-CA Active (dBm)
CA_2A-46A	2	20	19100	1900	1	0	1100	1980	46	20	50665	5537.5	22.48	22.42
CA_4A-46A	4	20	20300	1745	1	0	2300	2145	46	20	50665	5537.5	23.94	23.93

Power Measurements Laptop Mode for Inter-Band Contiguous Downlink CA(Three Band)

CA Combination	PCC								SCC1				SCC2				Power	
	LTE Band	BW (MHz)	UL Ch	UL Freq. (MHz)	RB Size	RB Offset	DL Ch	DL Freq. (MHz)	LTE Band	BW (MHz)	DL Ch	DL Freq. (MHz)	LTE Band	BW (MHz)	DL Ch	DL Freq. (MHz)	Single Carrier Tx Power (dBm)	Tx Power with DL-CA Active (dBm)
CA_2A-4A-5A	2	20	19100	1900	1	0	1100	1980	4	20	2175	2132.5	5	10	2525	881.5	22.48	22.37
CA_2A-4A-7A	2	20	19100	1900	1	0	1100	1980	4	20	2175	2132.5	7	20	3100	2655	22.48	22.39
CA_2A-4A-12A	2	20	19100	1900	1	0	1100	1980	4	20	2175	2132.5	12	10	5095	737.5	22.48	22.41
CA_2A-4A-13A	2	20	19100	1900	1	0	1100	1980	4	20	2175	2132.5	13	10	5230	751	22.48	22.46
CA_2A-4A-29A	2	20	19100	1900	1	0	1100	1980	4	20	2175	2132.5	29	10	9715	722.5	22.48	22.35
CA_2A-12A-30A	2	20	19100	1900	1	0	1100	1980	12	10	5095	737.5	30	10	9820	2355	22.48	22.39
CA_2A-29A-30A	2	20	19100	1900	1	0	1100	1980	29	10	9715	722.5	30	10	9820	2355	22.48	22.39
CA_2A-13A-66A	2	20	19100	1900	1	0	1100	1980	13	10	5230	751	66	20	66886	2155	22.48	22.37
CA_4A-5A-30A	4	20	20300	1745	1	0	2300	2145	5	10	2525	881.5	30	10	9820	2355	23.94	23.91
CA_4A-7A-12A	4	20	20300	1745	1	0	2300	2145	7	20	3100	2655	12	10	5095	737.5	23.94	23.89
CA_4A-12A-30A	4	20	20300	1745	1	0	2300	2145	12	10	5095	737.5	30	10	9820	2355	23.94	23.88
CA_4A-29A-30A	4	20	20300	1745	1	0	2300	2145	29	10	9715	722.5	30	10	9820	2355	23.94	23.92
CA_5A-30A-66A	4	10	20450	829	1	0	2450	874	30	10	9820	2355	66	20	66886	2155	23.53	23.25
CA_12A-30A-66A	12	10	23095	707.5	1	0	5095	737.5	30	10	9820	2355	66	20	66886	2155	23.62	23.35
CA_66A-29A-30A	66	20	132072	1720	1	0	66536	2120	29	10	9715	722.5	30	10	9820	2355	23.93	23.91

Summary for SAR Test Exclusion for LTE Downlink CA

Per power confirmation results in above, the uplink maximum output power with downlink CA active remains within the specified tune-up tolerance and not more than 0.25 dB higher than the maximum output power with downlink CA inactive. According to KDB 941225 D05A, the SAR test exclusion applies to LTE downlink CA operation.

FCC SAR Test Report

<Power Confirmation for SAR Testing for LTE Uplink CA>

The conducted power for uplink CA active was measured on the highest reported SAR configuration for each exposure condition with both two carrier components was set to largest channel bandwidth.

PCC							SCC							Power	
Band	BW (MHz)	Modulation	RB Size	RB Offset	UL Channel	UL Frequency (MHz)	Band	BW (MHz)	Modulation	RB Size	RB Offset	UL Channel	UL Frequency (MHz)	Single Carrier Tx Power (dBm)	Tx Power with UL-CA Active (dBm)
EUT without Power Reduction															
7	20	QPSK	1	0	20850	2510.0	7	20	QPSK	1	99	21048	2529.8	22.61	14.28
			1	99						1	0			22.37	22.31
7	20	QPSK	1	0	21100	2535.0	7	20	QPSK	1	99	21298	2554.8	22.74	14.34
			1	99						1	0			22.64	22.62
7	20	QPSK	1	0	21152	2540.2	7	20	QPSK	1	99	21350	2560.0	22.73	14.41
			1	99						1	0			22.39	22.30
41	20	QPSK	1	0	39750	2506.0	41	20	QPSK	1	99	39948	2525.8	22.49	14.19
			1	99						1	0			22.48	22.45
41	20	QPSK	1	0	40185	2549.5	41	20	QPSK	1	99	40383	2569.3	22.32	14.32
			1	99						1	0			22.20	22.20
41	20	QPSK	1	0	40620	25930	41	20	QPSK	1	99	40818	2612.8	22.21	14.08
			1	99						1	0			22.19	22.16
41	20	QPSK	1	0	41055	2636.5	41	20	QPSK	1	99	41253	2656.3	22.24	14.06
			1	99						1	0			22.12	22.10
41	20	QPSK	1	0	41292	2660.2	41	20	QPSK	1	99	41490	2680.0	22.98	14.08
			1	99						1	0			22.50	22.23
EUT with Power Reduction															
7	20	QPSK	1	0	20850	2510.0	7	20	QPSK	1	99	21048	2529.8	20.71	15.24
			1	99						1	0			20.32	20.31
7	20	QPSK	1	0	21100	2535.0	7	20	QPSK	1	99	21298	2554.8	20.77	15.23
			1	99						1	0			20.38	20.37
7	20	QPSK	1	0	21152	2540.2	7	20	QPSK	1	99	21350	2560.0	20.62	15.24
			1	99						1	0			20.23	20.22

SAR Measurements for Intra-Band Contiguous CA

The SAR testing was performed with the single carrier (uplink CA is inactive) for all test positions for each exposure condition. The LTE uplink CA active was verified with maximum output power on the highest SAR configuration of single carrier for each exposure condition. For intra-band contiguous CA, the SCC channel was set to closest available contiguous channel.

FCC SAR Test Report

4.7.2 SAR Results for Body Exposure Condition

Tablet PC Mode

Plot No.	Band	Mode	Test Position	Separation Distance (mm)	Ch.	RB#	RB Offset	P-sensor	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Scaling Factor	Power Drift (dB)	Measured SAR-1g (W/kg)	Scaled SAR-1g (W/kg)
01	LTE 7	QPSK20M	Top Side	0	PCC : 21100 SCC : 21298	PCC : 1 SCC : 1	PCC : 99 SCC : 0	W/	21.0	20.37	1.16	-0.01	0.673	0.78
02	LTE 41	QPSK20M	Top Side	0	PCC : 39750 SCC : 39948	PCC : 1 SCC : 1	PCC : 99 SCC : 0	W/O	23.0	22.45	1.14	0.09	0.430	0.49

Note: The SAR testing above was verified based on the CA band of original report.

4.7.3 Simultaneous Multi-band Transmission Evaluation

Since all the verified results are not worse than the results in original report, the simultaneous transmission evaluation has no effect and simultaneous SAR is not required.

Test Engineer : Sam Onn

5. Calibration of Test Equipment

Equipment	Manufacturer	Model	SN	Cal. Date	Cal. Interval
System Validation Dipole	SPEAG	D2600V2	1020	Aug. 24, 2018	1 Year
Dosimetric E-Field Probe	SPEAG	EX3DV4	3971	Mar. 29, 2019	1 Year
Data Acquisition Electronics	SPEAG	DAE3	1431	Mar. 25, 2019	1 Year
Spectrum Analyzer	R&S	FSL6	102006	Mar. 26, 2019	1 Year
ENA Series Network Analyzer	Agilent	E5071C	MY46214281	Jun. 08, 2018	1 Year
MXG Analog Signal Generator	Agilent	N5181A	MY50143868	Jul. 03, 2018	1 Year
Power Meter	Anritsu	ML2495A	1218009	Jul. 03, 2018	1 Year
Power Sensor	Anritsu	MA2411B	1207252	Jul. 03, 2018	1 Year
Thermometer	YFE	YF-160A	120702365	Aug. 07, 2018	1 Year

6. Measurement Uncertainty

According to KDB 865664 D01, SAR measurement uncertainty analysis is required in SAR reports only when the highest measured SAR in a frequency band is ≥ 1.5 W/kg for 1-g SAR, and ≥ 3.75 W/kg for 10-g SAR. The procedures described in IEEE Std 1528-2013 should be applied. The expanded SAR measurement uncertainty must be $\leq 30\%$, for a confidence interval of $k = 2$. When the highest measured SAR within a frequency band is < 1.5 W/kg for 1-g and < 3.75 W/kg for 10-g, the extensive SAR measurement uncertainty analysis described in IEEE Std 1528-2013 is not required in SAR reports submitted for equipment approval. Hence, the measurement uncertainty analysis is not required in this SAR report because the test result met the condition.

7. Information of the Testing Laboratories

We, Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch, were founded in 1988 to provide our best service in EMC, Radio, Telecom and Safety consultation. Our laboratories are accredited and approved according to ISO/IEC 17025.

If you have any comments, please feel free to contact us at the following:

Taiwan HwaYa EMC/RF/Safety/Telecom Lab:

Add: No. 19, Hwa Ya 2nd Rd, Wen Hwa Vil., Kwei Shan Hsiang, Taoyuan Hsien 333, Taiwan, R.O.C.

Tel: 886-3-318-3232

Fax: 886-3-327-0892

Taiwan LinKou EMC/RF Lab:

Add: No. 47-2, 14th Ling, Chia Pau Vil., Linkou Dist., New Taipei City 244, Taiwan, R.O.C.

Tel: 886-2-2605-2180

Fax: 886-2-2605-1924

Taiwan HsinChu EMC/RF Lab:

Add: E-2, No.1, Li Hsin 1st Road, Hsinchu Science Park, Hsinchu City 30078, Taiwan, R.O.C.

Tel: 886-3-593-5343

Fax: 886-3-593-5342

Email: service.adt@tw.bureauveritas.com

Web Site: www.bureauveritas-adt.com

The road map of all our labs can be found in our web site also.

---END---

Appendix A. SAR Plots of System Verification

The plots for system verification with largest deviation for each SAR system combination are shown as follows.

System Check_H2600_190525

DUT: Dipole 2600 MHz; Type: D2600V2; SN: 1020

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

Medium: H19T27N1_0525 Medium parameters used: $f = 2600$ MHz; $\sigma = 2.03$ S/m; $\epsilon_r = 37.41$; $\rho = 1000$ kg/m³

Ambient Temperature : 23.8 °C ; Liquid Temperature : 23.5 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3971; ConvF(7.48, 7.48, 7.48); Calibrated: 2019/03/29
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1431; Calibrated: 2019/03/25
- Phantom: ELI Phantom_1206; Type: QDOVA002AA;
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7450)

Pin=250mW/Area Scan (81x81x1): Interpolated grid: $dx=1.200$ mm, $dy=1.200$ mm

Maximum value of SAR (interpolated) = 23.4 W/kg

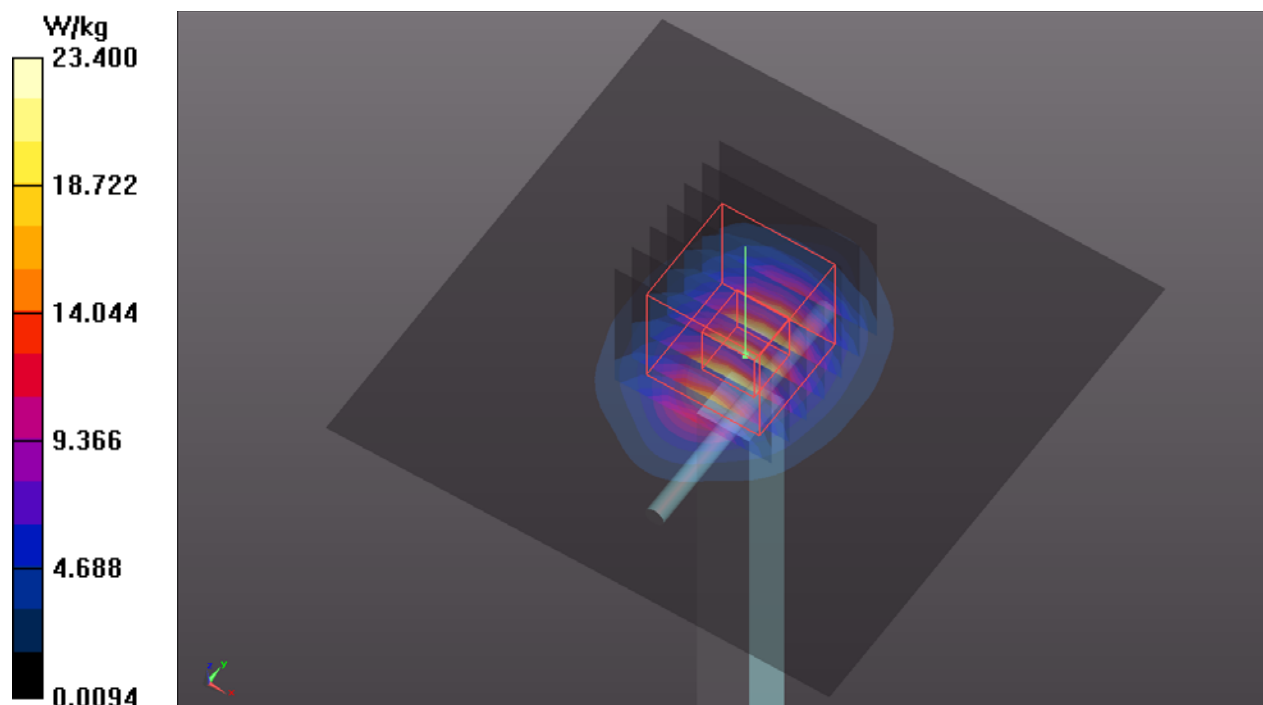
Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5$ mm, $dy=5$ mm, $dz=5$ mm

Reference Value = 103.0 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 29.5 W/kg

SAR(1 g) = 13.5 W/kg; SAR(10 g) = 6.06 W/kg

Maximum value of SAR (measured) = 23.4 W/kg



Appendix B. SAR Plots of SAR Measurement

The SAR plots for highest measured SAR in each exposure configuration, wireless mode and frequency band combination, and measured SAR > 1.5 W/kg are shown as follows.

**P01 CA_LTE 7_QPSK20M_Top Side_0mm_PCC Ch 21100_1RB_OS99_SCC
Ch 21298_1RB_OS0_P-sensor_w****DUT: 190322C13**

Communication System: LTE; Frequency: 2535 MHz; Duty Cycle: 1:1

Medium: H19T27N1_0525 Medium parameters used: $f = 2535$ MHz; $\sigma = 1.956$ S/m; $\epsilon_r = 37.64$; $\rho = 1000$ kg/m³

Ambient Temperature : 23.8 °C ; Liquid Temperature : 23.5 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3971; ConvF(7.48, 7.48, 7.48); Calibrated: 2019/03/29
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1431; Calibrated: 2019/03/25
- Phantom: ELI Phantom_1206; Type: QDOVA002AA;
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7450)

- **Area Scan (71x291x1):** Interpolated grid: $dx=1.200$ mm, $dy=1.200$ mm
Maximum value of SAR (interpolated) = 0.753 W/kg

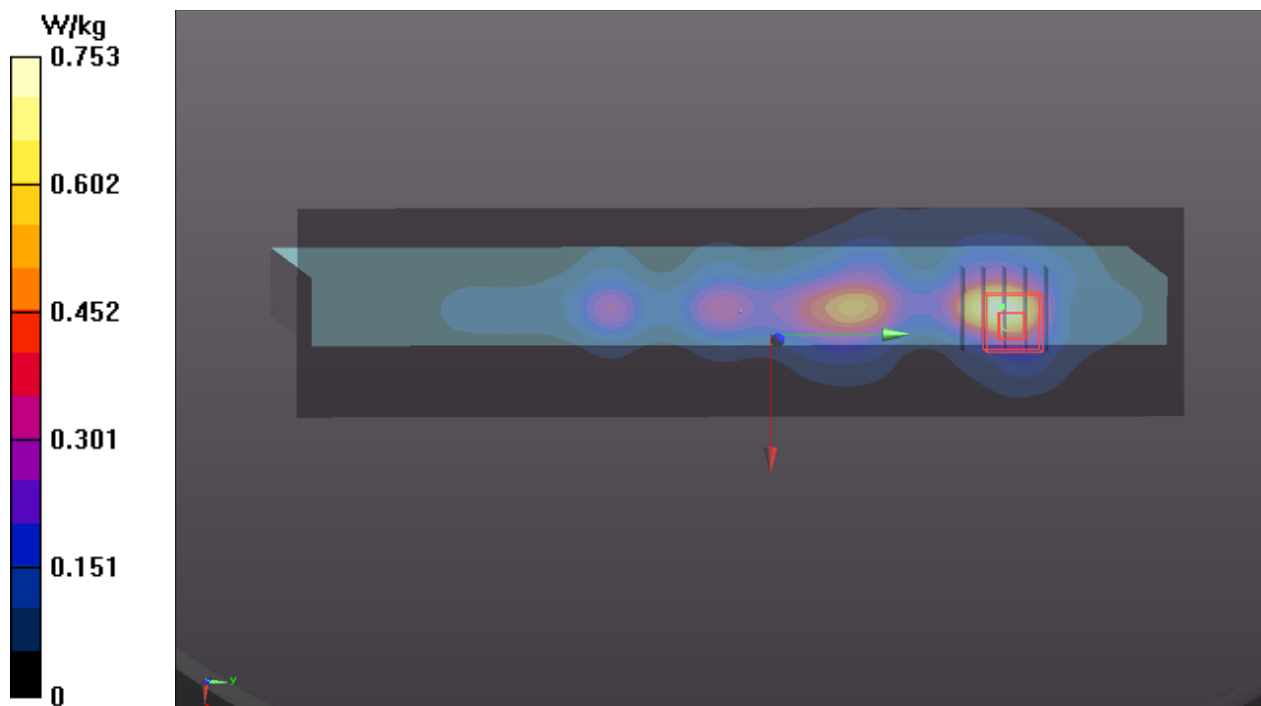
- **Zoom Scan (5x5x7)/Cube 0:** Measurement grid: $dx=8$ mm, $dy=8$ mm, $dz=5$ mm

Reference Value = 18.42 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 1.59 W/kg

SAR(1 g) = 0.673 W/kg; SAR(10 g) = 0.305 W/kg

Maximum value of SAR (measured) = 1.23 W/kg



**P02 CA_LTE 41_QPSK20M_Top Side_0mm_PCC Ch 39750_1RB_OS99_SCC
Ch 39948_1RB_OS0_P-sensor_w_o****DUT: 190322C13**

Communication System: LTE TDD CF0; Frequency: 2506 MHz; Duty Cycle: 1:1.58

Medium: H19T27N1_0525 Medium parameters used: $f = 2506$ MHz; $\sigma = 1.929$ S/m; $\epsilon_r = 37.746$; $\rho = 1000$ kg/m³

Ambient Temperature : 23.8 °C ; Liquid Temperature : 23.5 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3971; ConvF(7.48, 7.48, 7.48); Calibrated: 2019/03/29
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1431; Calibrated: 2019/03/25
- Phantom: ELI Phantom_1206; Type: QDOVA002AA;
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7450)

- **Area Scan (71x291x1):** Interpolated grid: $dx=1.200$ mm, $dy=1.200$ mm
Maximum value of SAR (interpolated) = 0.503 W/kg

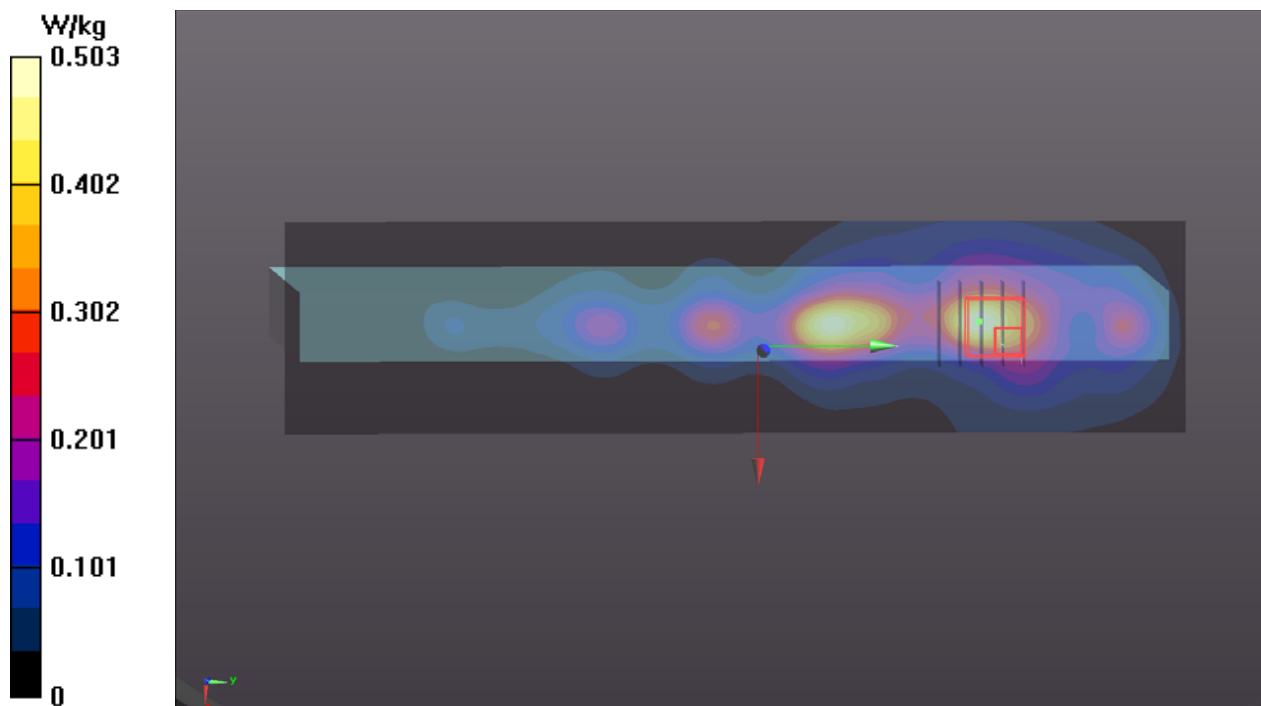
- **Zoom Scan (5x5x7)/Cube 0:** Measurement grid: $dx=8$ mm, $dy=8$ mm, $dz=5$ mm

Reference Value = 16.44 V/m; Power Drift = 0.09 dB

Peak SAR (extrapolated) = 1.04 W/kg

SAR(1 g) = 0.430 W/kg; SAR(10 g) = 0.177 W/kg

Maximum value of SAR (measured) = 0.772 W/kg



Appendix C. Calibration Certificate for Probe and Dipole

The SPEAG calibration certificates are shown as follows.



Accredited by the Swiss Accreditation Service (SAS)

Accreditation No.: **SCS 0108**

The Swiss Accreditation Service is one of the signatories to the EA
 Multilateral Agreement for the recognition of calibration certificates

Client **B.V. ADT (Auden)**

Certificate No: **D2600V2-1020_Aug18**

CALIBRATION CERTIFICATE

Object **D2600V2 - SN:1020**

Calibration procedure(s) **QA CAL-05.v10**
Calibration procedure for dipole validation kits above 700 MHz

Calibration date: **August 24, 2018**

This calibration certificate documents the traceability to national standards, which realize the physical units of measurements (SI).
 The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate.

All calibrations have been conducted in the closed laboratory facility: environment temperature (22 ± 3)°C and humidity < 70%.

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID #	Cal Date (Certificate No.)	Scheduled Calibration
Power meter NRP	SN: 104778	04-Apr-18 (No. 217-02672/02673)	Apr-19
Power sensor NRP-Z91	SN: 103244	04-Apr-18 (No. 217-02672)	Apr-19
Power sensor NRP-Z91	SN: 103245	04-Apr-18 (No. 217-02673)	Apr-19
Reference 20 dB Attenuator	SN: 5058 (20k)	04-Apr-18 (No. 217-02682)	Apr-19
Type-N mismatch combination	SN: 5047.2 / 06327	04-Apr-18 (No. 217-02683)	Apr-19
Reference Probe EX3DV4	SN: 7349	30-Dec-17 (No. EX3-7349_Dec17)	Dec-18
DAE4	SN: 601	26-Oct-17 (No. DAE4-601_Oct17)	Oct-18
Secondary Standards	ID #	Check Date (in house)	Scheduled Check
Power meter EPM-442A	SN: GB37480704	07-Oct-15 (in house check Oct-16)	In house check: Oct-18
Power sensor HP 8481A	SN: US37292783	07-Oct-15 (in house check Oct-16)	In house check: Oct-18
Power sensor HP 8481A	SN: MY41092317	07-Oct-15 (in house check Oct-16)	In house check: Oct-18
RF generator R&S SMT-06	SN: 100972	15-Jun-15 (in house check Oct-16)	In house check: Oct-18
Network Analyzer Agilent E8358A	SN: US41080477	31-Mar-14 (in house check Oct-17)	In house check: Oct-18

Calibrated by: **Manu Seitz** **Laboratory Technician**

Approved by: **Katja Pokovic** **Technical Manager**

Signature

Issued: August 24, 2018

This calibration certificate shall not be reproduced except in full without written approval of the laboratory.



Accredited by the Swiss Accreditation Service (SAS)

The Swiss Accreditation Service is one of the signatories to the EA
Multilateral Agreement for the recognition of calibration certificates

Accreditation No.: **SCS 0108**

Glossary:

TSL	tissue simulating liquid
ConvF	sensitivity in TSL / NORM x,y,z
N/A	not applicable or not measured

Calibration is Performed According to the Following Standards:

- IEEE Std 1528-2013, "IEEE Recommended Practice for Determining the Peak Spatial-Averaged Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques", June 2013
- IEC 62209-1, "Measurement procedure for the assessment of Specific Absorption Rate (SAR) from hand-held and body-mounted devices used next to the ear (frequency range of 300 MHz to 6 GHz)", July 2016
- IEC 62209-2, "Procedure to determine the Specific Absorption Rate (SAR) for wireless communication devices used in close proximity to the human body (frequency range of 30 MHz to 6 GHz)", March 2010
- KDB 865664, "SAR Measurement Requirements for 100 MHz to 6 GHz"

Additional Documentation:

- DASY4/5 System Handbook

Methods Applied and Interpretation of Parameters:

- Measurement Conditions:** Further details are available from the Validation Report at the end of the certificate. All figures stated in the certificate are valid at the frequency indicated.
- Antenna Parameters with TSL:** The dipole is mounted with the spacer to position its feed point exactly below the center marking of the flat phantom section, with the arms oriented parallel to the body axis.
- Feed Point Impedance and Return Loss:** These parameters are measured with the dipole positioned under the liquid filled phantom. The impedance stated is transformed from the measurement at the SMA connector to the feed point. The Return Loss ensures low reflected power. No uncertainty required.
- Electrical Delay:** One-way delay between the SMA connector and the antenna feed point. No uncertainty required.
- SAR measured:** SAR measured at the stated antenna input power.
- SAR normalized:** SAR as measured, normalized to an input power of 1 W at the antenna connector.
- SAR for nominal TSL parameters:** The measured TSL parameters are used to calculate the nominal SAR result.

The reported uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor $k=2$, which for a normal distribution corresponds to a coverage probability of approximately 95%.

Measurement Conditions

DASY system configuration, as far as not given on page 1.

DASY Version	DASY5	V52.10.1
Extrapolation	Advanced Extrapolation	
Phantom	Modular Flat Phantom	
Distance Dipole Center - TSL	10 mm	with Spacer
Zoom Scan Resolution	dx, dy, dz = 5 mm	
Frequency	2600 MHz $\pm$ 1 MHz	

Head TSL parameters

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Head TSL parameters	22.0 °C	39.0	1.96 mho/m
Measured Head TSL parameters	(22.0 $\pm$ 0.2) °C	37.1 $\pm$ 6 %	2.03 mho/m $\pm$ 6 %
Head TSL temperature change during test	< 0.5 °C	----	----

SAR result with Head TSL

SAR averaged over 1 cm³ (1 g) of Head TSL	Condition	
SAR measured	250 mW input power	14.3 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	55.7 W/kg $\pm$ 17.0 % (k=2)

SAR averaged over 10 cm³ (10 g) of Head TSL	condition	
SAR measured	250 mW input power	6.36 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	25.0 W/kg $\pm$ 16.5 % (k=2)

Body TSL parameters

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Body TSL parameters	22.0 °C	52.5	2.16 mho/m
Measured Body TSL parameters	(22.0 $\pm$ 0.2) °C	51.3 $\pm$ 6 %	2.20 mho/m $\pm$ 6 %
Body TSL temperature change during test	< 0.5 °C	----	----

SAR result with Body TSL

SAR averaged over 1 cm³ (1 g) of Body TSL	Condition	
SAR measured	250 mW input power	14.0 W/kg
SAR for nominal Body TSL parameters	normalized to 1W	55.3 W/kg $\pm$ 17.0 % (k=2)

SAR averaged over 10 cm³ (10 g) of Body TSL	condition	
SAR measured	250 mW input power	6.22 W/kg
SAR for nominal Body TSL parameters	normalized to 1W	24.7 W/kg $\pm$ 16.5 % (k=2)

Appendix (Additional assessments outside the scope of SCS 0108)

Antenna Parameters with Head TSL

Impedance, transformed to feed point	48.3 Ω - 5.7 j Ω
Return Loss	- 24.3 dB

Antenna Parameters with Body TSL

Impedance, transformed to feed point	44.1 Ω - 3.7 j Ω
Return Loss	- 22.6 dB

General Antenna Parameters and Design

Electrical Delay (one direction)	1.154 ns
----------------------------------	----------

After long term use with 100W radiated power, only a slight warming of the dipole near the feedpoint can be measured.

The dipole is made of standard semirigid coaxial cable. The center conductor of the feeding line is directly connected to the second arm of the dipole. The antenna is therefore short-circuited for DC-signals. On some of the dipoles, small end caps are added to the dipole arms in order to improve matching when loaded according to the position as explained in the "Measurement Conditions" paragraph. The SAR data are not affected by this change. The overall dipole length is still according to the Standard.

No excessive force must be applied to the dipole arms, because they might bend or the soldered connections near the feedpoint may be damaged.

Additional EUT Data

Manufactured by	SPEAG
Manufactured on	May 13, 2008

DASY5 Validation Report for Head TSL

Date: 23.08.2018

Test Laboratory: SPEAG, Zurich, Switzerland

DUT: Dipole 2600 MHz; Type: D2600V2; Serial: D2600V2 - SN:1020

Communication System: UID 0 - CW; Frequency: 2600 MHz

Medium parameters used: $f = 2600$ MHz; $\sigma = 2.03$ S/m; $\epsilon_r = 37.1$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

DASY52 Configuration:

- Probe: EX3DV4 - SN7349; ConvF(7.7, 7.7, 7.7) @ 2600 MHz; Calibrated: 30.12.2017
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 26.10.2017
- Phantom: Flat Phantom 5.0 (front); Type: QD 000 P50 AA; Serial: 1001
- DASY52 52.10.1(1476); SEMCAD X 14.6.11(7439)

Dipole Calibration for Head Tissue/Pin=250 mW, d=10mm/Zoom Scan (7x7x7)/Cube 0:

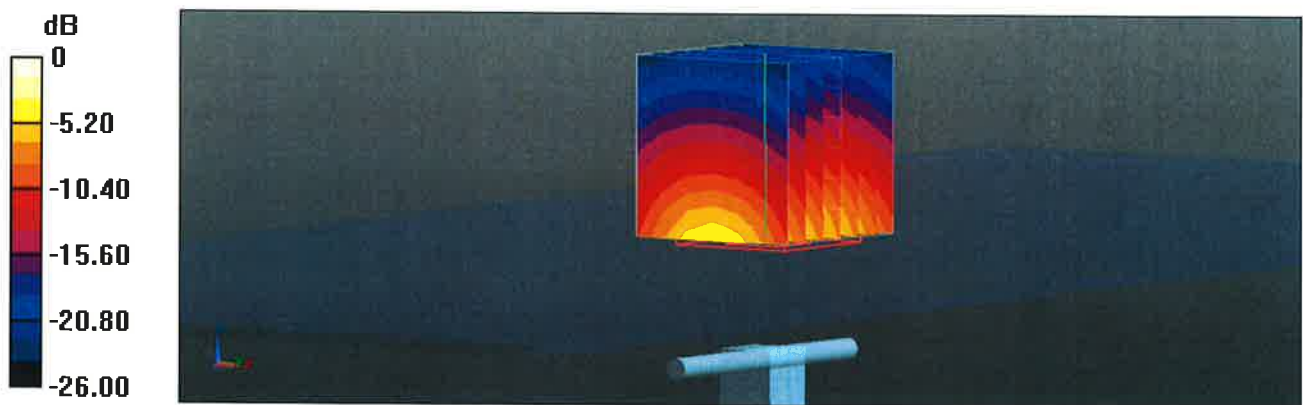
Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 118.3 V/m; Power Drift = -0.04 dB

Peak SAR (extrapolated) = 28.5 W/kg

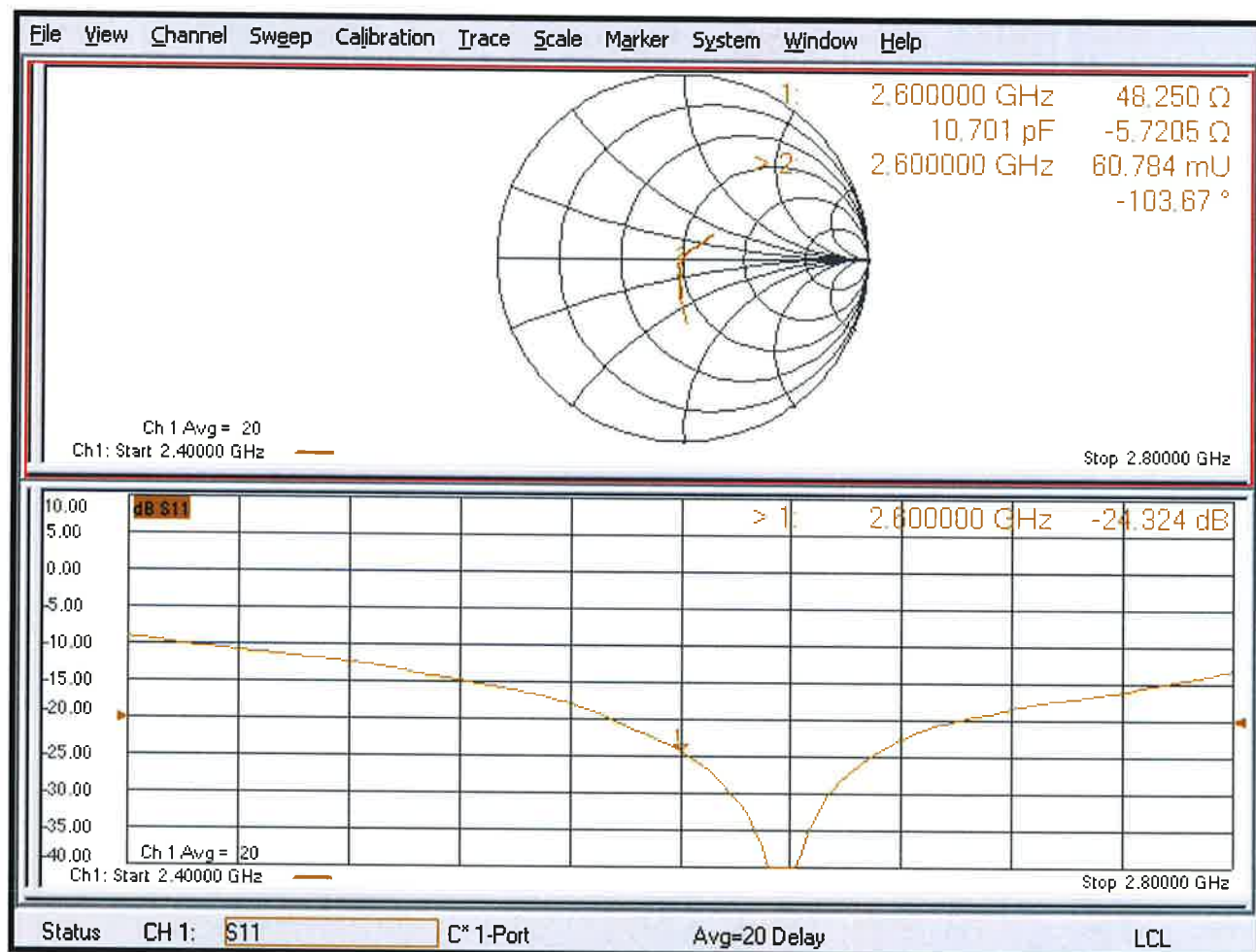
SAR(1 g) = 14.3 W/kg; SAR(10 g) = 6.36 W/kg

Maximum value of SAR (measured) = 23.9 W/kg



0 dB = 23.9 W/kg = 13.78 dBW/kg

Impedance Measurement Plot for Head TSL



DASY5 Validation Report for Body TSL

Date: 24.08.2018

Test Laboratory: SPEAG, Zurich, Switzerland

DUT: Dipole 2600 MHz; Type: D2600V2; Serial: D2600V2 - SN:1020

Communication System: UID 0 - CW; Frequency: 2600 MHz

Medium parameters used: $f = 2600$ MHz; $\sigma = 2.2$ S/m; $\epsilon_r = 51.3$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

DASY52 Configuration:

- Probe: EX3DV4 - SN7349; ConvF(7.81, 7.81, 7.81) @ 2600 MHz; Calibrated: 30.12.2017
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 26.10.2017
- Phantom: Flat Phantom 5.0 (back); Type: QD 000 P50 AA; Serial: 1002
- DASY52 52.10.1(1476); SEMCAD X 14.6.11(7439)

Dipole Calibration for Body Tissue/Pin=250 mW, d=10mm/Zoom Scan (7x7x7)/Cube 0:

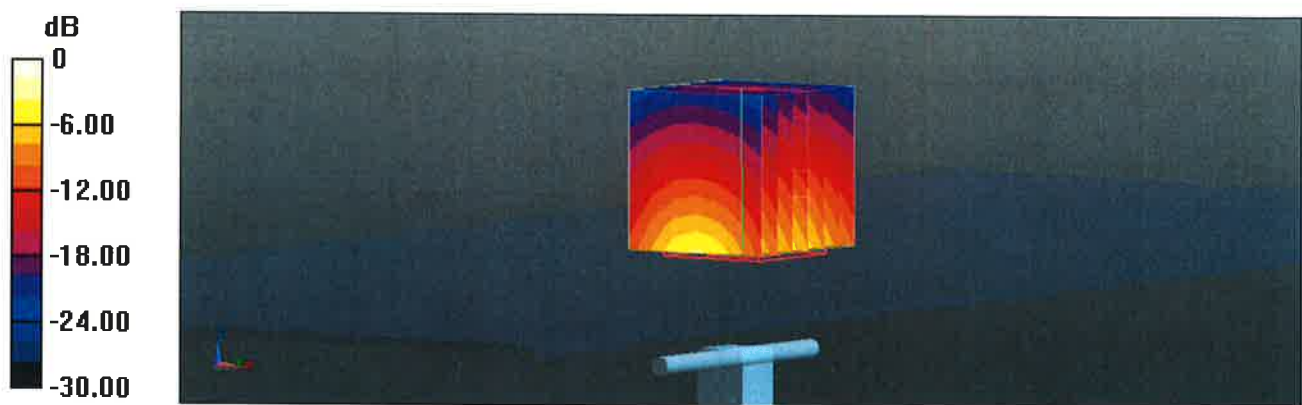
Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 109.7 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 29.1 W/kg

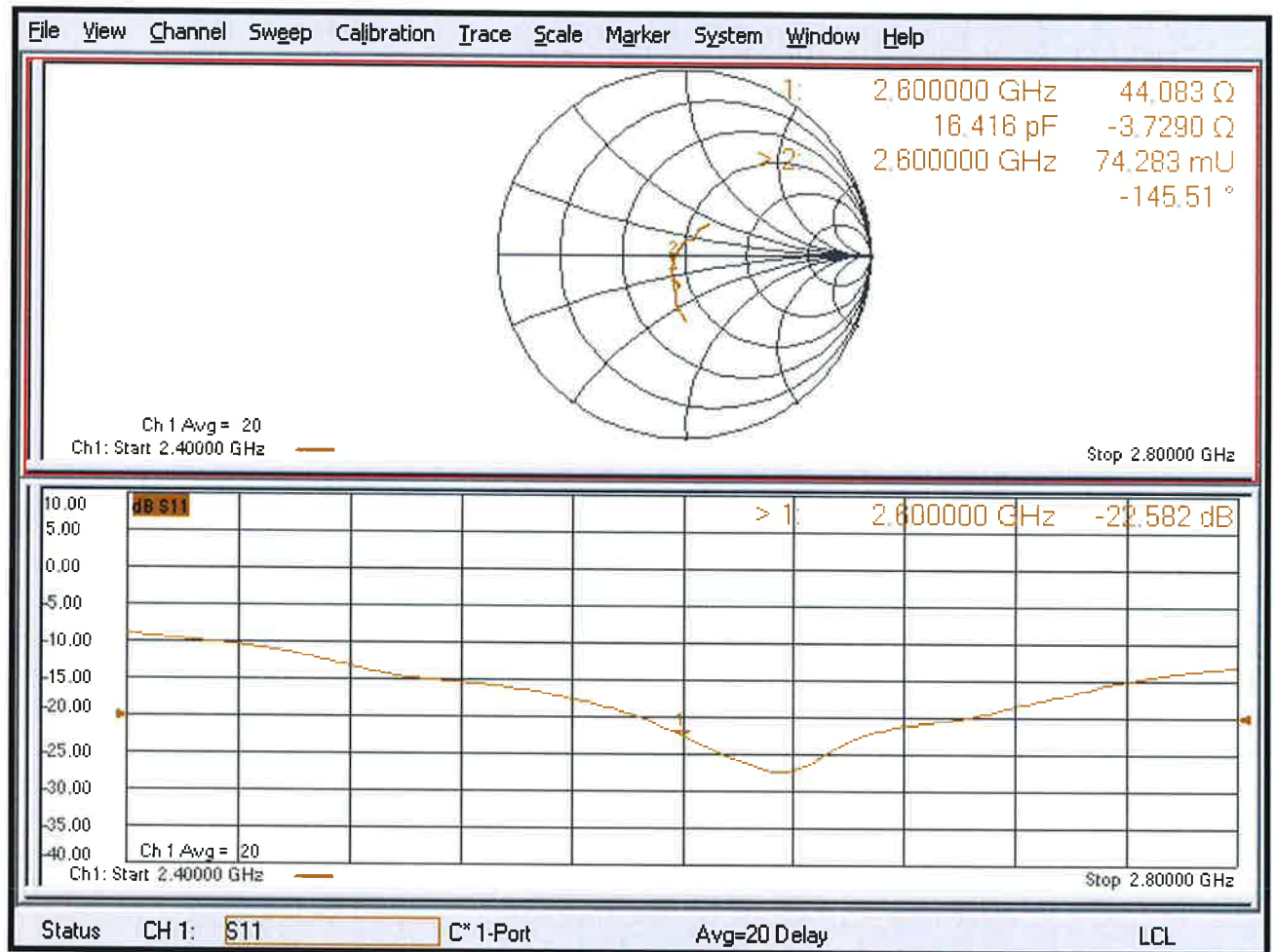
SAR(1 g) = 14 W/kg; SAR(10 g) = 6.22 W/kg

Maximum value of SAR (measured) = 23.8 W/kg



0 dB = 23.8 W/kg = 13.77 dBW/kg

Impedance Measurement Plot for Body TSL





Accredited by the Swiss Accreditation Service (SAS)

Accreditation No.: **SCS 0108**

The Swiss Accreditation Service is one of the signatories to the EA
 Multilateral Agreement for the recognition of calibration certificates

Client **B.V. ADT (Auden)**

Certificate No: **EX3-3971_Mar19**

CALIBRATION CERTIFICATE

Object **EX3DV4 - SN:3971**

Calibration procedure(s) **QA CAL-01.v9, QA CAL-12.v9, QA CAL-14.v5, QA CAL-23.v5,
 QA CAL-25.v7
 Calibration procedure for dosimetric E-field probes**

Calibration date: **March 29, 2019**

This calibration certificate documents the traceability to national standards, which realize the physical units of measurements (SI).
 The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate.

All calibrations have been conducted in the closed laboratory facility: environment temperature $(22 \pm 3)^{\circ}\text{C}$ and humidity $< 70\%$.

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID	Cal Date (Certificate No.)	Scheduled Calibration
Power meter NRP	SN: 104778	04-Apr-18 (No. 217-02672/02673)	Apr-19
Power sensor NRP-Z91	SN: 103244	04-Apr-18 (No. 217-02672)	Apr-19
Power sensor NRP-Z91	SN: 103245	04-Apr-18 (No. 217-02673)	Apr-19
Reference 20 dB Attenuator	SN: S5277 (20x)	04-Apr-18 (No. 217-02682)	Apr-19
DAE4	SN: 660	19-Dec-18 (No. DAE4-660_Dec18)	Dec-19
Reference Probe ES3DV2	SN: 3013	31-Dec-18 (No. ES3-3013_Dec18)	Dec-19
Secondary Standards	ID	Check Date (in house)	Scheduled Check
Power meter E4419B	SN: GB41293874	06-Apr-16 (in house check Jun-18)	In house check: Jun-20
Power sensor E4412A	SN: MY41498087	06-Apr-16 (in house check Jun-18)	In house check: Jun-20
Power sensor E4412A	SN: 000110210	06-Apr-16 (in house check Jun-18)	In house check: Jun-20
RF generator HP 8648C	SN: US3642U01700	04-Aug-99 (in house check Jun-18)	In house check: Jun-20
Network Analyzer E8358A	SN: US41080477	31-Mar-14 (in house check Oct-18)	In house check: Oct-19

	Name	Function	Signature
Calibrated by:	Jeton Kastrati	Laboratory Technician	
Approved by:	Katja Pokovic	Technical Manager	
Issued: April 2, 2019			
This calibration certificate shall not be reproduced except in full without written approval of the laboratory.			



Accredited by the Swiss Accreditation Service (SAS)

Accreditation No.: **SCS 0108**

The Swiss Accreditation Service is one of the signatories to the EA
 Multilateral Agreement for the recognition of calibration certificates

Glossary:

TSL	tissue simulating liquid
NORM _{x,y,z}	sensitivity in free space
ConvF	sensitivity in TSL / NORM _{x,y,z}
DCP	diode compression point
CF	crest factor (1/duty_cycle) of the RF signal
A, B, C, D	modulation dependent linearization parameters
Polarization ϕ	ϕ rotation around probe axis
Polarization ϑ	ϑ rotation around an axis that is in the plane normal to probe axis (at measurement center), i.e., $\vartheta = 0$ is normal to probe axis
Connector Angle	information used in DASY system to align probe sensor X to the robot coordinate system

Calibration is Performed According to the Following Standards:

- IEEE Std 1528-2013, "IEEE Recommended Practice for Determining the Peak Spatial-Averaged Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques", June 2013
- IEC 62209-1, "Measurement procedure for the assessment of Specific Absorption Rate (SAR) from hand-held and body-mounted devices used next to the ear (frequency range of 300 MHz to 6 GHz)", July 2016
- IEC 62209-2, "Procedure to determine the Specific Absorption Rate (SAR) for wireless communication devices used in close proximity to the human body (frequency range of 30 MHz to 6 GHz)", March 2010
- KDB 865664, "SAR Measurement Requirements for 100 MHz to 6 GHz"

Methods Applied and Interpretation of Parameters:

- NORM_{x,y,z}**: Assessed for E-field polarization $\vartheta = 0$ ($f \leq 900$ MHz in TEM-cell; $f > 1800$ MHz: R22 waveguide). NORM_{x,y,z} are only intermediate values, i.e., the uncertainties of NORM_{x,y,z} does not affect the E^2 -field uncertainty inside TSL (see below **ConvF**).
- NORM(f)_{x,y,z}** = NORM_{x,y,z} * frequency_response (see Frequency Response Chart). This linearization is implemented in DASY4 software versions later than 4.2. The uncertainty of the frequency response is included in the stated uncertainty of **ConvF**.
- DCP_{x,y,z}**: DCP are numerical linearization parameters assessed based on the data of power sweep with CW signal (no uncertainty required). DCP does not depend on frequency nor media.
- PAR**: PAR is the Peak to Average Ratio that is not calibrated but determined based on the signal characteristics
- A_{x,y,z}; B_{x,y,z}; C_{x,y,z}; D_{x,y,z}; VR_{x,y,z}; A, B, C, D** are numerical linearization parameters assessed based on the data of power sweep for specific modulation signal. The parameters do not depend on frequency nor media. VR is the maximum calibration range expressed in RMS voltage across the diode.
- ConvF and Boundary Effect Parameters**: Assessed in flat phantom using E-field (or Temperature Transfer Standard for $f \leq 800$ MHz) and inside waveguide using analytical field distributions based on power measurements for $f > 800$ MHz. The same setups are used for assessment of the parameters applied for boundary compensation (alpha, depth) of which typical uncertainty values are given. These parameters are used in DASY4 software to improve probe accuracy close to the boundary. The sensitivity in TSL corresponds to NORM_{x,y,z} * ConvF whereby the uncertainty corresponds to that given for ConvF. A frequency dependent ConvF is used in DASY version 4.4 and higher which allows extending the validity from ± 50 MHz to ± 100 MHz.
- Spherical isotropy (3D deviation from isotropy)**: in a field of low gradients realized using a flat phantom exposed by a patch antenna.
- Sensor Offset**: The sensor offset corresponds to the offset of virtual measurement center from the probe tip (on probe axis). No tolerance required.
- Connector Angle**: The angle is assessed using the information gained by determining the NORM_x (no uncertainty required).

DASY/EASY - Parameters of Probe: EX3DV4 - SN:3971

Basic Calibration Parameters

	Sensor X	Sensor Y	Sensor Z	Unc (k=2)
Norm ($\mu\text{V}/(\text{V}/\text{m})^2$) ^A	0.40	0.51	0.49	± 10.1 %
DCP (mV) ^B	103.9	103.6	102.3	

Calibration Results for Modulation Response

UID	Communication System Name		A dB	B dB $\sqrt{\mu\text{V}}$	C	D dB	VR mV	Max dev.	Max Unc ^E (k=2)
0	CW	X	0.00	0.00	1.00	0.00	179.7	± 3.0 %	± 4.7 %
		Y	0.00	0.00	1.00		190.4		
		Z	0.00	0.00	1.00		194.1		
10352-AAA	Pulse Waveform (200Hz, 10%)	X	1.73	61.06	8.72	10.00	60.0	± 3.0 %	± 9.6 %
		Y	15.00	88.66	20.42		60.0		
		Z	15.00	88.05	20.25		60.0		
10353-AAA	Pulse Waveform (200Hz, 20%)	X	1.59	63.34	8.35	6.99	80.0	± 1.8 %	± 9.6 %
		Y	15.00	90.67	20.25		80.0		
		Z	15.00	89.35	19.50		80.0		
10354-AAA	Pulse Waveform (200Hz, 40%)	X	0.56	60.00	5.33	3.98	95.0	± 1.1 %	± 9.6 %
		Y	15.00	94.62	20.74		95.0		
		Z	15.00	91.57	18.88		95.0		
10355-AAA	Pulse Waveform (200Hz, 60%)	X	0.34	60.00	3.84	2.22	120.0	± 1.1 %	± 9.6 %
		Y	15.00	100.11	21.98		120.0		
		Z	15.00	89.32	16.23		120.0		
10387-AAA	QPSK Waveform, 1 MHz	X	0.43	60.00	5.18	0.00	150.0	± 3.3 %	± 9.6 %
		Y	0.79	62.96	10.34		150.0		
		Z	0.59	60.04	7.77		150.0		
10388-AAA	QPSK Waveform, 10 MHz	X	2.04	68.44	15.89	0.00	150.0	± 1.2 %	± 9.6 %
		Y	2.30	68.73	16.15		150.0		
		Z	2.05	66.69	14.86		150.0		
10396-AAA	64-QAM Waveform, 100 kHz	X	2.51	68.60	17.67	3.01	150.0	± 0.7 %	± 9.6 %
		Y	3.41	73.18	19.86		150.0		
		Z	2.83	68.83	17.88		150.0		
10399-AAA	64-QAM Waveform, 40 MHz	X	3.35	67.20	15.83	0.00	150.0	± 2.3 %	± 9.6 %
		Y	3.53	67.36	15.94		150.0		
		Z	3.40	66.48	15.38		150.0		
10414-AAA	WLAN CCDF, 64-QAM, 40MHz	X	4.61	65.75	15.62	0.00	150.0	± 4.2 %	± 9.6 %
		Y	4.87	65.69	15.58		150.0		
		Z	4.80	65.29	15.36		150.0		

Note: For details on UID parameters see Appendix

The reported uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor k=2, which for a normal distribution corresponds to a coverage probability of approximately 95%.

^A The uncertainties of Norm X,Y,Z do not affect the E²-field uncertainty inside TSL (see Pages 5 and 6).

^B Numerical linearization parameter: uncertainty not required.

^E Uncertainty is determined using the max. deviation from linear response applying rectangular distribution and is expressed for the square of the field value.

DASY/EASY - Parameters of Probe: EX3DV4 - SN:3971

Sensor Model Parameters

	C1 fF	C2 fF	α V^{-1}	T1 $ms.V^{-2}$	T2 $ms.V^{-1}$	T3 ms	T4 V^{-2}	T5 V^{-1}	T6
X	32.5	244.72	36.11	6.12	0.82	4.98	0.38	0.38	1.00
Y	48.0	355.29	35.09	13.12	0.33	5.08	2.00	0.18	1.01
Z	46.8	360.76	37.45	11.36	0.53	5.09	0.23	0.54	1.01

Other Probe Parameters

Sensor Arrangement	Triangular
Connector Angle (°)	74.6
Mechanical Surface Detection Mode	enabled
Optical Surface Detection Mode	disabled
Probe Overall Length	337 mm
Probe Body Diameter	10 mm
Tip Length	9 mm
Tip Diameter	2.5 mm
Probe Tip to Sensor X Calibration Point	1 mm
Probe Tip to Sensor Y Calibration Point	1 mm
Probe Tip to Sensor Z Calibration Point	1 mm
Recommended Measurement Distance from Surface	1.4 mm

DASY/EASY - Parameters of Probe: EX3DV4 - SN:3971

Calibration Parameter Determined in Head Tissue Simulating Media

f (MHz) ^C	Relative Permittivity ^F	Conductivity (S/m) ^F	ConvF X	ConvF Y	ConvF Z	Alpha ^G	Depth ^G (mm)	Unc (k=2)
450	43.5	0.87	11.02	11.02	11.02	0.12	1.25	± 13.3 %
750	41.9	0.89	10.75	10.75	10.75	0.49	0.80	± 12.0 %
835	41.5	0.90	10.18	10.18	10.18	0.41	0.87	± 12.0 %
900	41.5	0.97	9.90	9.90	9.90	0.43	0.80	± 12.0 %
1450	40.5	1.20	8.76	8.76	8.76	0.32	0.80	± 12.0 %
1640	40.2	1.31	8.78	8.78	8.78	0.33	0.86	± 12.0 %
1750	40.1	1.37	8.80	8.80	8.80	0.28	0.86	± 12.0 %
1900	40.0	1.40	8.47	8.47	8.47	0.28	0.80	± 12.0 %
2000	40.0	1.40	8.25	8.25	8.25	0.30	0.80	± 12.0 %
2300	39.5	1.67	8.04	8.04	8.04	0.29	0.95	± 12.0 %
2450	39.2	1.80	7.65	7.65	7.65	0.30	0.95	± 12.0 %
2600	39.0	1.96	7.48	7.48	7.48	0.36	0.80	± 12.0 %
3300	38.2	2.71	7.30	7.30	7.30	0.35	1.25	± 13.1 %
3500	37.9	2.91	6.99	6.99	6.99	0.35	1.25	± 13.1 %
3700	37.7	3.12	6.89	6.89	6.89	0.35	1.25	± 13.1 %
3900	37.5	3.32	6.71	6.71	6.71	0.35	1.60	± 13.1 %
4100	37.2	3.53	6.21	6.21	6.21	0.40	1.60	± 13.1 %
5250	35.9	4.71	5.12	5.12	5.12	0.40	1.80	± 13.1 %
5600	35.5	5.07	4.78	4.78	4.78	0.40	1.80	± 13.1 %
5750	35.4	5.22	4.92	4.92	4.92	0.40	1.80	± 13.1 %

^C Frequency validity above 300 MHz of ± 100 MHz only applies for DASY v4.4 and higher (see Page 2), else it is restricted to ± 50 MHz. The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band. Frequency validity below 300 MHz is ± 10, 25, 40, 50 and 70 MHz for ConvF assessments at 30, 64, 128, 150 and 220 MHz respectively. Validity of ConvF assessed at 6 MHz is 4-9 MHz, and ConvF assessed at 13 MHz is 9-19 MHz. Above 5 GHz frequency validity can be extended to ± 110 MHz.

^F At frequencies below 3 GHz, the validity of tissue parameters (ϵ and σ) can be relaxed to ± 10% if liquid compensation formula is applied to measured SAR values. At frequencies above 3 GHz, the validity of tissue parameters (ϵ and σ) is restricted to ± 5%. The uncertainty is the RSS of the ConvF uncertainty for indicated target tissue parameters.

^G Alpha/Depth are determined during calibration. SPEAG warrants that the remaining deviation due to the boundary effect after compensation is always less than ± 1% for frequencies below 3 GHz and below ± 2% for frequencies between 3-6 GHz at any distance larger than half the probe tip diameter from the boundary.

DASY/EASY - Parameters of Probe: EX3DV4 - SN:3971

Calibration Parameter Determined in Body Tissue Simulating Media

f (MHz) ^C	Relative Permittivity ^F	Conductivity (S/m) ^F	ConvF X	ConvF Y	ConvF Z	Alpha ^G	Depth ^G (mm)	Unc (k=2)
450	56.7	0.94	10.72	10.72	10.72	0.07	1.25	± 13.3 %
750	55.5	0.96	10.35	10.35	10.35	0.52	0.80	± 12.0 %
835	55.2	0.97	9.94	9.94	9.94	0.49	0.81	± 12.0 %
1750	53.4	1.49	8.48	8.48	8.48	0.39	0.80	± 12.0 %
1900	53.3	1.52	8.13	8.13	8.13	0.25	1.07	± 12.0 %
2300	52.9	1.81	7.88	7.88	7.88	0.44	0.80	± 12.0 %
2450	52.7	1.95	7.75	7.75	7.75	0.34	0.80	± 12.0 %
2600	52.5	2.16	7.55	7.55	7.55	0.32	0.80	± 12.0 %
3300	51.6	3.08	6.80	6.80	6.80	0.40	1.25	± 13.1 %
3500	51.3	3.31	6.64	6.64	6.64	0.40	1.25	± 13.1 %
3700	51.0	3.55	6.47	6.47	6.47	0.40	1.25	± 13.1 %
3900	51.2	3.78	6.52	6.52	6.52	0.35	1.60	± 13.1 %
4100	50.5	4.01	6.13	6.13	6.13	0.35	1.60	± 13.1 %
5250	48.9	5.36	4.46	4.46	4.46	0.50	1.90	± 13.1 %
5600	48.5	5.77	4.05	4.05	4.05	0.50	1.90	± 13.1 %
5750	48.3	5.94	4.20	4.20	4.20	0.50	1.90	± 13.1 %

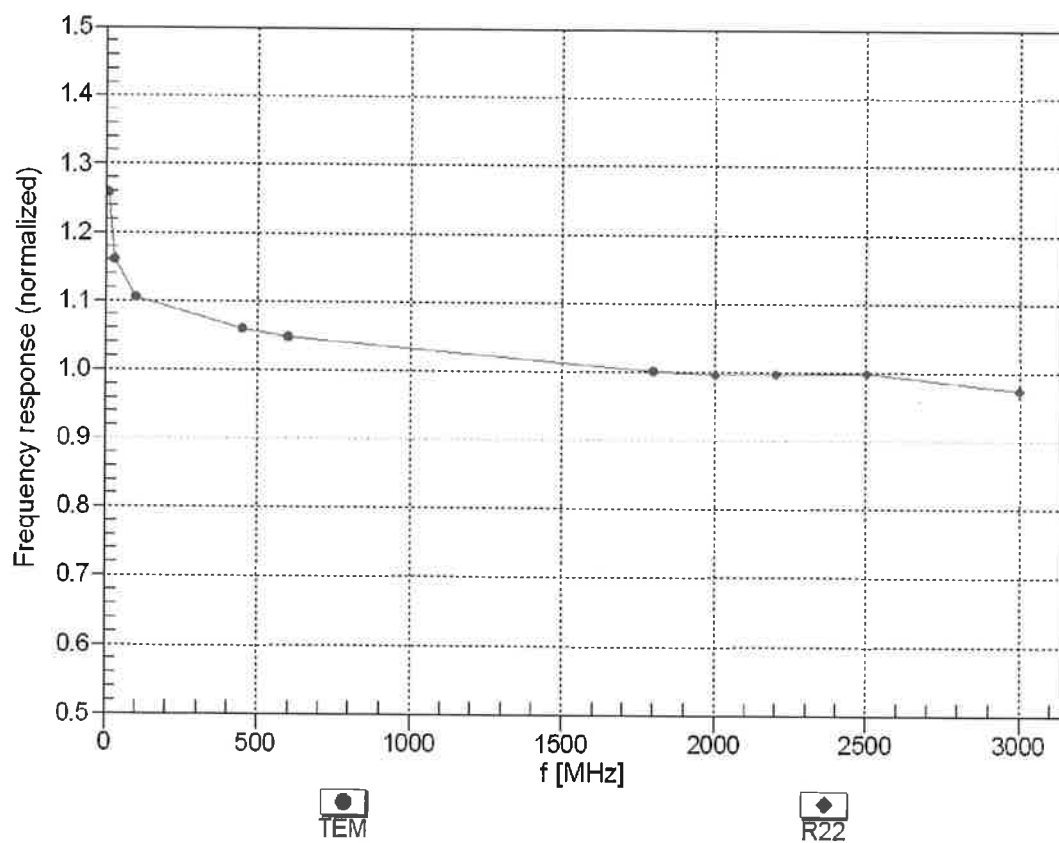
^C Frequency validity above 300 MHz of ± 100 MHz only applies for DASY v4.4 and higher (see Page 2), else it is restricted to ± 50 MHz. The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band. Frequency validity below 300 MHz is ± 10, 25, 40, 50 and 70 MHz for ConvF assessments at 30, 64, 128, 150 and 220 MHz respectively. Validity of ConvF assessed at 6 MHz is 4-9 MHz, and ConvF assessed at 13 MHz is 9-19 MHz. Above 5 GHz frequency validity can be extended to ± 110 MHz.

^F At frequencies below 3 GHz, the validity of tissue parameters (ϵ and σ) can be relaxed to ± 10% if liquid compensation formula is applied to measured SAR values. At frequencies above 3 GHz, the validity of tissue parameters (ϵ and σ) is restricted to ± 5%. The uncertainty is the RSS of the ConvF uncertainty for indicated target tissue parameters.

^G Alpha/Depth are determined during calibration. SPEAG warrants that the remaining deviation due to the boundary effect after compensation is always less than ± 1% for frequencies below 3 GHz and below ± 2% for frequencies between 3-6 GHz at any distance larger than half the probe tip diameter from the boundary.

Frequency Response of E-Field

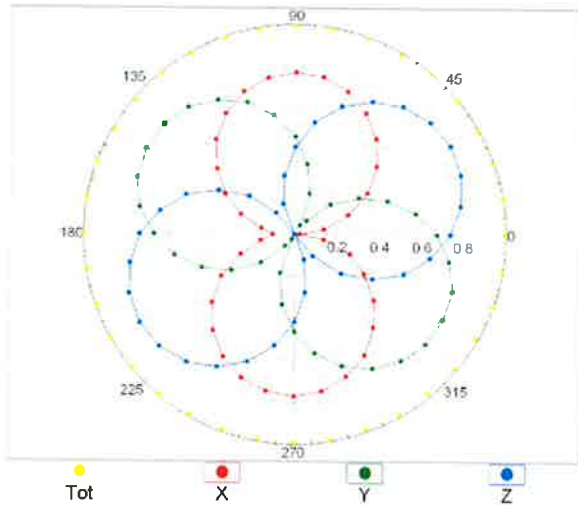
(TEM-Cell:ifi110 EXX, Waveguide: R22)



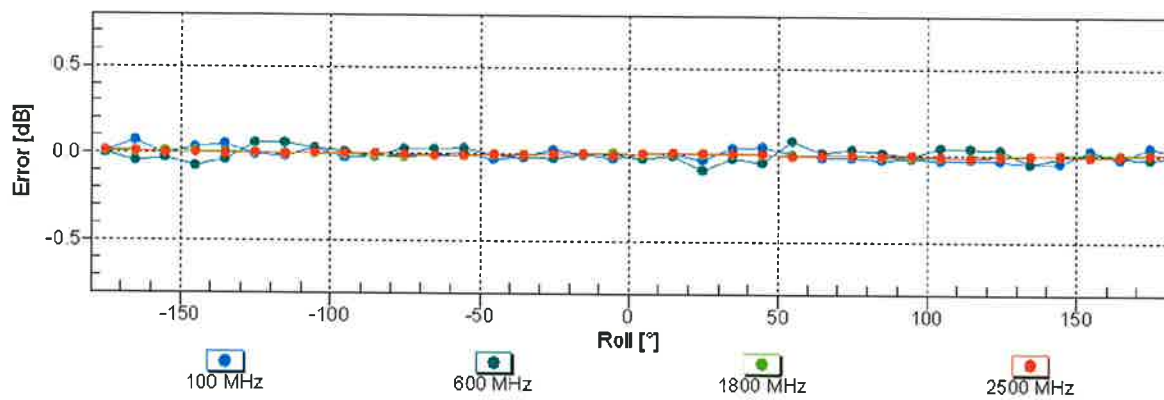
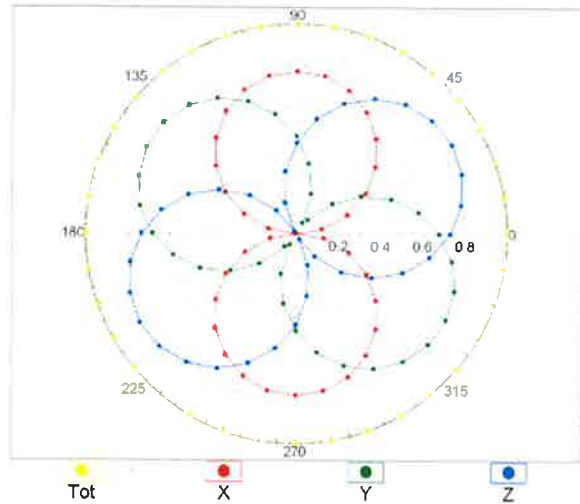
Uncertainty of Frequency Response of E-field: $\pm 6.3\%$ ($k=2$)

Receiving Pattern (ϕ), $\vartheta = 0^\circ$

f=600 MHz,TEM

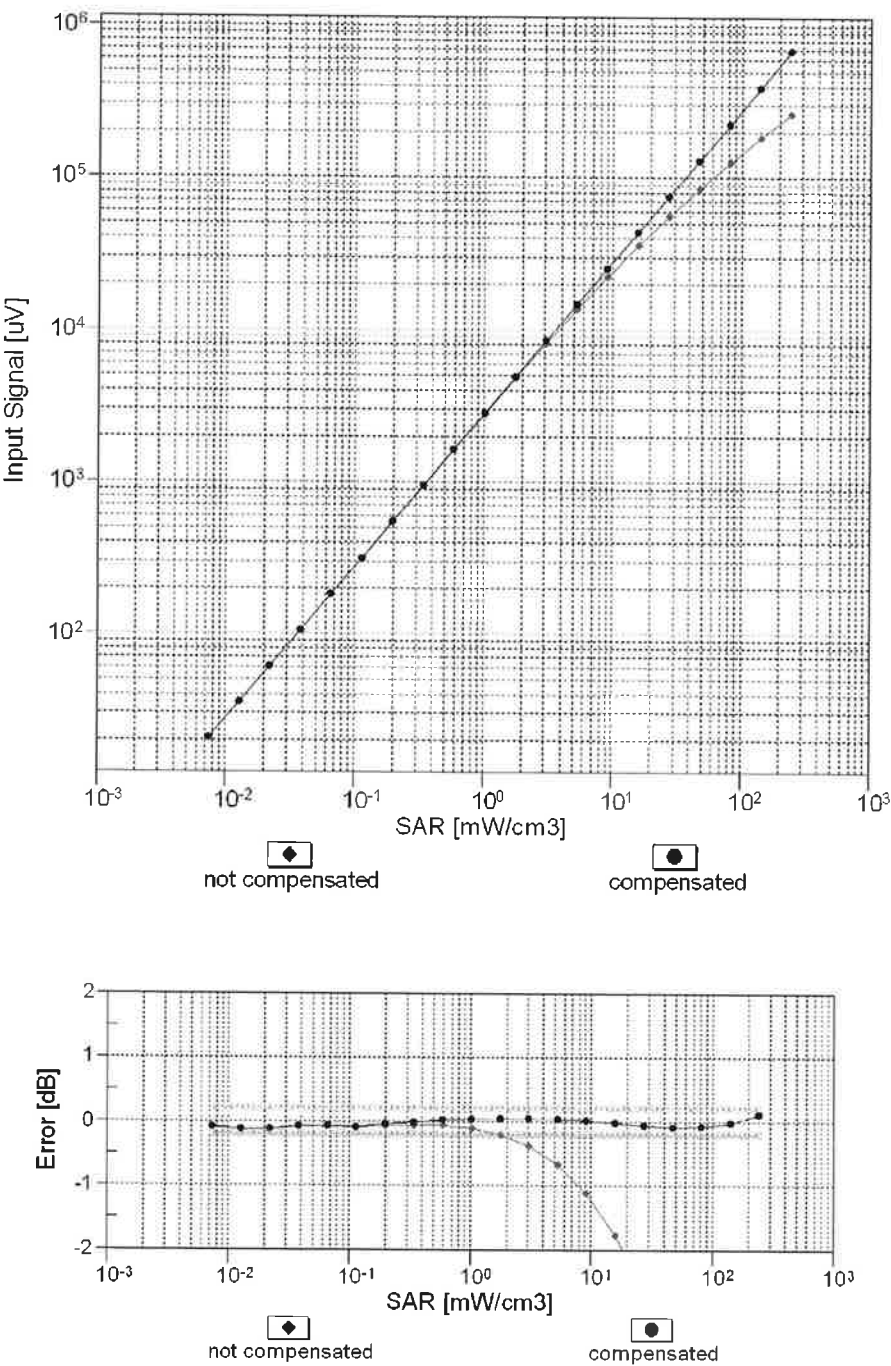


f=1800 MHz,R22



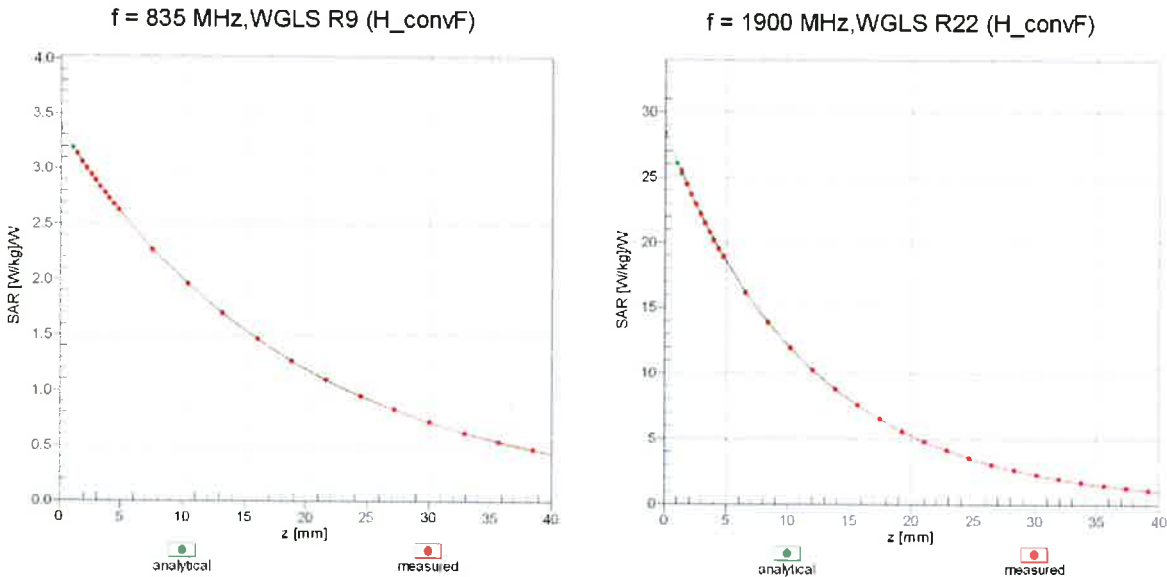
Uncertainty of Axial Isotropy Assessment: $\pm 0.5\%$ (k=2)

Dynamic Range f(SAR_{head})
(TEM cell , f_{eval}= 1900 MHz)

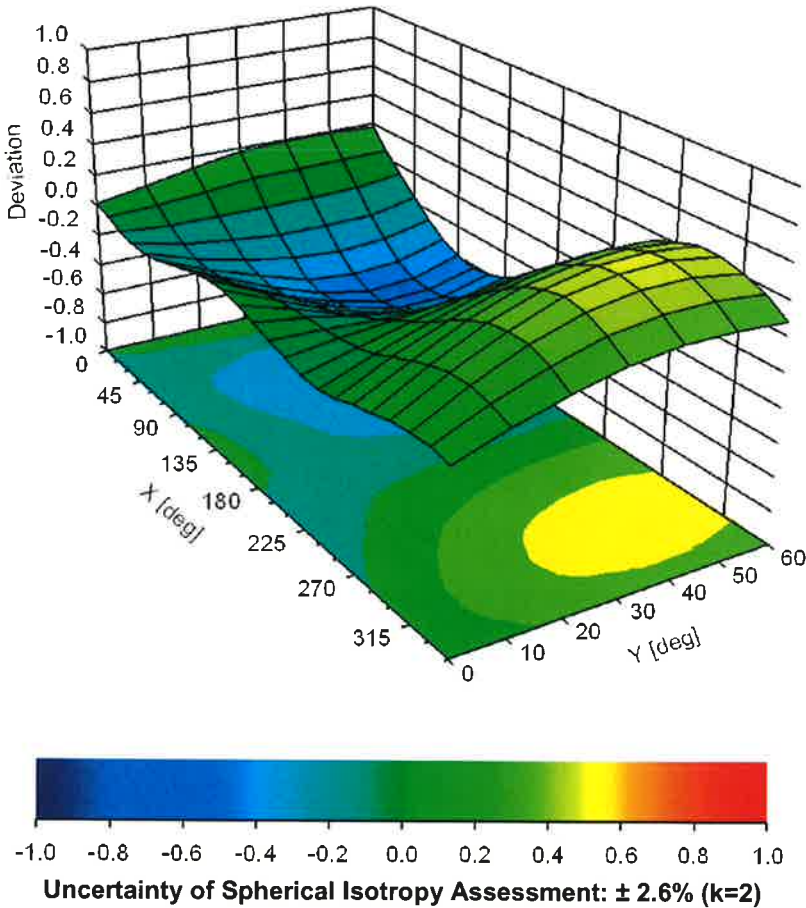


Uncertainty of Linearity Assessment: ± 0.6% (k=2)

Conversion Factor Assessment



Deviation from Isotropy in Liquid Error (ϕ, ϑ), f = 900 MHz



Appendix: Modulation Calibration Parameters

UID	Rev	Communication System Name	Group	PAR (dB)	Unc ^E (k=2)
0		CW	CW	0.00	± 4.7 %
10010	CAA	SAR Validation (Square, 100ms, 10ms)	Test	10.00	± 9.6 %
10011	CAB	UMTS-FDD (WCDMA)	WCDMA	2.91	± 9.6 %
10012	CAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps)	WLAN	1.87	± 9.6 %
10013	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps)	WLAN	9.46	± 9.6 %
10021	DAC	GSM-FDD (TDMA, GMSK)	GSM	9.39	± 9.6 %
10023	DAC	GPRS-FDD (TDMA, GMSK, TN 0)	GSM	9.57	± 9.6 %
10024	DAC	GPRS-FDD (TDMA, GMSK, TN 0-1)	GSM	6.56	± 9.6 %
10025	DAC	EDGE-FDD (TDMA, 8PSK, TN 0)	GSM	12.62	± 9.6 %
10026	DAC	EDGE-FDD (TDMA, 8PSK, TN 0-1)	GSM	9.55	± 9.6 %
10027	DAC	GPRS-FDD (TDMA, GMSK, TN 0-1-2)	GSM	4.80	± 9.6 %
10028	DAC	GPRS-FDD (TDMA, GMSK, TN 0-1-2-3)	GSM	3.55	± 9.6 %
10029	DAC	EDGE-FDD (TDMA, 8PSK, TN 0-1-2)	GSM	7.78	± 9.6 %
10030	CAA	IEEE 802.15.1 Bluetooth (GFSK, DH1)	Bluetooth	5.30	± 9.6 %
10031	CAA	IEEE 802.15.1 Bluetooth (GFSK, DH3)	Bluetooth	1.87	± 9.6 %
10032	CAA	IEEE 802.15.1 Bluetooth (GFSK, DH5)	Bluetooth	1.16	± 9.6 %
10033	CAA	IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH1)	Bluetooth	7.74	± 9.6 %
10034	CAA	IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH3)	Bluetooth	4.53	± 9.6 %
10035	CAA	IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH5)	Bluetooth	3.83	± 9.6 %
10036	CAA	IEEE 802.15.1 Bluetooth (8-DPSK, DH1)	Bluetooth	8.01	± 9.6 %
10037	CAA	IEEE 802.15.1 Bluetooth (8-DPSK, DH3)	Bluetooth	4.77	± 9.6 %
10038	CAA	IEEE 802.15.1 Bluetooth (8-DPSK, DH5)	Bluetooth	4.10	± 9.6 %
10039	CAB	CDMA2000 (1xRTT, RC1)	CDMA2000	4.57	± 9.6 %
10042	CAB	IS-54 / IS-136 FDD (TDMA/FDM, PI/4-DQPSK, Halfrate)	AMPS	7.78	± 9.6 %
10044	CAA	IS-91/EIA/TIA-553 FDD (FDMA, FM)	AMPS	0.00	± 9.6 %
10048	CAA	DECT (TDD, TDMA/FDM, GFSK, Full Slot, 24)	DECT	13.80	± 9.6 %
10049	CAA	DECT (TDD, TDMA/FDM, GFSK, Double Slot, 12)	DECT	10.79	± 9.6 %
10056	CAA	UMTS-TDD (TD-SCDMA, 1.28 Mcps)	TD-SCDMA	11.01	± 9.6 %
10058	DAC	EDGE-FDD (TDMA, 8PSK, TN 0-1-2-3)	GSM	6.52	± 9.6 %
10059	CAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps)	WLAN	2.12	± 9.6 %
10060	CAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps)	WLAN	2.83	± 9.6 %
10061	CAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps)	WLAN	3.60	± 9.6 %
10062	CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps)	WLAN	8.68	± 9.6 %
10063	CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps)	WLAN	8.63	± 9.6 %
10064	CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps)	WLAN	9.09	± 9.6 %
10065	CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps)	WLAN	9.00	± 9.6 %
10066	CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps)	WLAN	9.38	± 9.6 %
10067	CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps)	WLAN	10.12	± 9.6 %
10068	CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps)	WLAN	10.24	± 9.6 %
10069	CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps)	WLAN	10.56	± 9.6 %
10071	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 9 Mbps)	WLAN	9.83	± 9.6 %
10072	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 12 Mbps)	WLAN	9.62	± 9.6 %
10073	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 18 Mbps)	WLAN	9.94	± 9.6 %
10074	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 24 Mbps)	WLAN	10.30	± 9.6 %
10075	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 36 Mbps)	WLAN	10.77	± 9.6 %
10076	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 48 Mbps)	WLAN	10.94	± 9.6 %
10077	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 54 Mbps)	WLAN	11.00	± 9.6 %
10081	CAB	CDMA2000 (1xRTT, RC3)	CDMA2000	3.97	± 9.6 %
10082	CAB	IS-54 / IS-136 FDD (TDMA/FDM, PI/4-DQPSK, Fullrate)	AMPS	4.77	± 9.6 %
10090	DAC	GPRS-FDD (TDMA, GMSK, TN 0-4)	GSM	6.56	± 9.6 %
10097	CAB	UMTS-FDD (HSDPA)	WCDMA	3.98	± 9.6 %
10098	CAB	UMTS-FDD (HSUPA, Subtest 2)	WCDMA	3.98	± 9.6 %
10099	DAC	EDGE-FDD (TDMA, 8PSK, TN 0-4)	GSM	9.55	± 9.6 %
10100	CAE	LTE-FDD (SC-FDMA, 100% RB, 20 MHz, QPSK)	LTE-FDD	5.67	± 9.6 %
10101	CAE	LTE-FDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM)	LTE-FDD	6.42	± 9.6 %
10102	CAE	LTE-FDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM)	LTE-FDD	6.60	± 9.6 %
10103	CAG	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, QPSK)	LTE-TDD	9.29	± 9.6 %
10104	CAG	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM)	LTE-TDD	9.97	± 9.6 %
10105	CAG	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM)	LTE-TDD	10.01	± 9.6 %
10108	CAG	LTE-FDD (SC-FDMA, 100% RB, 10 MHz, QPSK)	LTE-FDD	5.80	± 9.6 %

10109	CAG	LTE-FDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM)	LTE-FDD	6.43	± 9.6 %
10110	CAG	LTE-FDD (SC-FDMA, 100% RB, 5 MHz, QPSK)	LTE-FDD	5.75	± 9.6 %
10111	CAG	LTE-FDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM)	LTE-FDD	6.44	± 9.6 %
10112	CAG	LTE-FDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM)	LTE-FDD	6.59	± 9.6 %
10113	CAG	LTE-FDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM)	LTE-FDD	6.62	± 9.6 %
10114	CAC	IEEE 802.11n (HT Greenfield, 13.5 Mbps, BPSK)	WLAN	8.10	± 9.6 %
10115	CAC	IEEE 802.11n (HT Greenfield, 81 Mbps, 16-QAM)	WLAN	8.46	± 9.6 %
10116	CAC	IEEE 802.11n (HT Greenfield, 135 Mbps, 64-QAM)	WLAN	8.15	± 9.6 %
10117	CAC	IEEE 802.11n (HT Mixed, 13.5 Mbps, BPSK)	WLAN	8.07	± 9.6 %
10118	CAC	IEEE 802.11n (HT Mixed, 81 Mbps, 16-QAM)	WLAN	8.59	± 9.6 %
10119	CAC	IEEE 802.11n (HT Mixed, 135 Mbps, 64-QAM)	WLAN	8.13	± 9.6 %
10140	CAE	LTE-FDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM)	LTE-FDD	6.49	± 9.6 %
10141	CAE	LTE-FDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM)	LTE-FDD	6.53	± 9.6 %
10142	CAE	LTE-FDD (SC-FDMA, 100% RB, 3 MHz, QPSK)	LTE-FDD	5.73	± 9.6 %
10143	CAE	LTE-FDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM)	LTE-FDD	6.35	± 9.6 %
10144	CAE	LTE-FDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM)	LTE-FDD	6.65	± 9.6 %
10145	CAF	LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK)	LTE-FDD	5.76	± 9.6 %
10146	CAF	LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM)	LTE-FDD	6.41	± 9.6 %
10147	CAF	LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM)	LTE-FDD	6.72	± 9.6 %
10149	CAE	LTE-FDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM)	LTE-FDD	6.42	± 9.6 %
10150	CAE	LTE-FDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM)	LTE-FDD	6.60	± 9.6 %
10151	CAG	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, QPSK)	LTE-TDD	9.28	± 9.6 %
10152	CAG	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM)	LTE-TDD	9.92	± 9.6 %
10153	CAG	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM)	LTE-TDD	10.05	± 9.6 %
10154	CAG	LTE-FDD (SC-FDMA, 50% RB, 10 MHz, QPSK)	LTE-FDD	5.75	± 9.6 %
10155	CAG	LTE-FDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM)	LTE-FDD	6.43	± 9.6 %
10156	CAG	LTE-FDD (SC-FDMA, 50% RB, 5 MHz, QPSK)	LTE-FDD	5.79	± 9.6 %
10157	CAG	LTE-FDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM)	LTE-FDD	6.49	± 9.6 %
10158	CAG	LTE-FDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM)	LTE-FDD	6.62	± 9.6 %
10159	CAG	LTE-FDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM)	LTE-FDD	6.56	± 9.6 %
10160	CAE	LTE-FDD (SC-FDMA, 50% RB, 15 MHz, QPSK)	LTE-FDD	5.82	± 9.6 %
10161	CAE	LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM)	LTE-FDD	6.43	± 9.6 %
10162	CAE	LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM)	LTE-FDD	6.58	± 9.6 %
10166	CAF	LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK)	LTE-FDD	5.46	± 9.6 %
10167	CAF	LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM)	LTE-FDD	6.21	± 9.6 %
10168	CAF	LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM)	LTE-FDD	6.79	± 9.6 %
10169	CAE	LTE-FDD (SC-FDMA, 1 RB, 20 MHz, QPSK)	LTE-FDD	5.73	± 9.6 %
10170	CAE	LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM)	LTE-FDD	6.52	± 9.6 %
10171	AAE	LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM)	LTE-FDD	6.49	± 9.6 %
10172	CAG	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK)	LTE-TDD	9.21	± 9.6 %
10173	CAG	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM)	LTE-TDD	9.48	± 9.6 %
10174	CAG	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM)	LTE-TDD	10.25	± 9.6 %
10175	CAG	LTE-FDD (SC-FDMA, 1 RB, 10 MHz, QPSK)	LTE-FDD	5.72	± 9.6 %
10176	CAG	LTE-FDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM)	LTE-FDD	6.52	± 9.6 %
10177	CAI	LTE-FDD (SC-FDMA, 1 RB, 5 MHz, QPSK)	LTE-FDD	5.73	± 9.6 %
10178	CAG	LTE-FDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM)	LTE-FDD	6.52	± 9.6 %
10179	CAG	LTE-FDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM)	LTE-FDD	6.50	± 9.6 %
10180	CAG	LTE-FDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM)	LTE-FDD	6.50	± 9.6 %
10181	CAE	LTE-FDD (SC-FDMA, 1 RB, 15 MHz, QPSK)	LTE-FDD	5.72	± 9.6 %
10182	CAE	LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM)	LTE-FDD	6.52	± 9.6 %
10183	AAD	LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM)	LTE-FDD	6.50	± 9.6 %
10184	CAE	LTE-FDD (SC-FDMA, 1 RB, 3 MHz, QPSK)	LTE-FDD	5.73	± 9.6 %
10185	CAE	LTE-FDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM)	LTE-FDD	6.51	± 9.6 %
10186	AAE	LTE-FDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM)	LTE-FDD	6.50	± 9.6 %
10187	CAF	LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK)	LTE-FDD	5.73	± 9.6 %
10188	CAF	LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM)	LTE-FDD	6.52	± 9.6 %
10189	AAF	LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM)	LTE-FDD	6.50	± 9.6 %
10193	CAC	IEEE 802.11n (HT Greenfield, 6.5 Mbps, BPSK)	WLAN	8.09	± 9.6 %
10194	CAC	IEEE 802.11n (HT Greenfield, 39 Mbps, 16-QAM)	WLAN	8.12	± 9.6 %
10195	CAC	IEEE 802.11n (HT Greenfield, 65 Mbps, 64-QAM)	WLAN	8.21	± 9.6 %
10196	CAC	IEEE 802.11n (HT Mixed, 6.5 Mbps, BPSK)	WLAN	8.10	± 9.6 %
10197	CAC	IEEE 802.11n (HT Mixed, 39 Mbps, 16-QAM)	WLAN	8.13	± 9.6 %
10198	CAC	IEEE 802.11n (HT Mixed, 65 Mbps, 64-QAM)	WLAN	8.27	± 9.6 %
10219	CAC	IEEE 802.11n (HT Mixed, 7.2 Mbps, BPSK)	WLAN	8.03	± 9.6 %

10220	CAC	IEEE 802.11n (HT Mixed, 43.3 Mbps, 16-QAM)	WLAN	8.13	± 9.6 %
10221	CAC	IEEE 802.11n (HT Mixed, 72.2 Mbps, 64-QAM)	WLAN	8.27	± 9.6 %
10222	CAC	IEEE 802.11n (HT Mixed, 15 Mbps, BPSK)	WLAN	8.06	± 9.6 %
10223	CAC	IEEE 802.11n (HT Mixed, 90 Mbps, 16-QAM)	WLAN	8.48	± 9.6 %
10224	CAC	IEEE 802.11n (HT Mixed, 150 Mbps, 64-QAM)	WLAN	8.08	± 9.6 %
10225	CAB	UMTS-FDD (HSPA+)	WCDMA	5.97	± 9.6 %
10226	CAA	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM)	LTE-TDD	9.49	± 9.6 %
10227	CAA	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM)	LTE-TDD	10.26	± 9.6 %
10228	CAA	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK)	LTE-TDD	9.22	± 9.6 %
10229	CAC	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM)	LTE-TDD	9.48	± 9.6 %
10230	CAC	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM)	LTE-TDD	10.25	± 9.6 %
10231	CAC	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, QPSK)	LTE-TDD	9.19	± 9.6 %
10232	CAF	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM)	LTE-TDD	9.48	± 9.6 %
10233	CAF	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM)	LTE-TDD	10.25	± 9.6 %
10234	CAF	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK)	LTE-TDD	9.21	± 9.6 %
10235	CAF	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM)	LTE-TDD	9.48	± 9.6 %
10236	CAF	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM)	LTE-TDD	10.25	± 9.6 %
10237	CAF	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK)	LTE-TDD	9.21	± 9.6 %
10238	CAF	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM)	LTE-TDD	9.48	± 9.6 %
10239	CAF	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM)	LTE-TDD	10.25	± 9.6 %
10240	CAF	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, QPSK)	LTE-TDD	9.21	± 9.6 %
10241	CAA	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM)	LTE-TDD	9.82	± 9.6 %
10242	CAA	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM)	LTE-TDD	9.86	± 9.6 %
10243	CAA	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK)	LTE-TDD	9.46	± 9.6 %
10244	CAC	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM)	LTE-TDD	10.06	± 9.6 %
10245	CAC	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM)	LTE-TDD	10.06	± 9.6 %
10246	CAC	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, QPSK)	LTE-TDD	9.30	± 9.6 %
10247	CAF	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM)	LTE-TDD	9.91	± 9.6 %
10248	CAF	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM)	LTE-TDD	10.09	± 9.6 %
10249	CAF	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, QPSK)	LTE-TDD	9.29	± 9.6 %
10250	CAF	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM)	LTE-TDD	9.81	± 9.6 %
10251	CAF	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM)	LTE-TDD	10.17	± 9.6 %
10252	CAF	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, QPSK)	LTE-TDD	9.24	± 9.6 %
10253	CAF	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM)	LTE-TDD	9.90	± 9.6 %
10254	CAF	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM)	LTE-TDD	10.14	± 9.6 %
10255	CAF	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, QPSK)	LTE-TDD	9.20	± 9.6 %
10256	CAA	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM)	LTE-TDD	9.96	± 9.6 %
10257	CAA	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM)	LTE-TDD	10.08	± 9.6 %
10258	CAA	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK)	LTE-TDD	9.34	± 9.6 %
10259	CAC	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM)	LTE-TDD	9.98	± 9.6 %
10260	CAC	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM)	LTE-TDD	9.97	± 9.6 %
10261	CAC	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, QPSK)	LTE-TDD	9.24	± 9.6 %
10262	CAF	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM)	LTE-TDD	9.83	± 9.6 %
10263	CAF	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM)	LTE-TDD	10.16	± 9.6 %
10264	CAF	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, QPSK)	LTE-TDD	9.23	± 9.6 %
10265	CAF	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM)	LTE-TDD	9.92	± 9.6 %
10266	CAF	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM)	LTE-TDD	10.07	± 9.6 %
10267	CAF	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, QPSK)	LTE-TDD	9.30	± 9.6 %
10268	CAF	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM)	LTE-TDD	10.06	± 9.6 %
10269	CAF	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM)	LTE-TDD	10.13	± 9.6 %
10270	CAF	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, QPSK)	LTE-TDD	9.58	± 9.6 %
10274	CAB	UMTS-FDD (HSUPA, Subtest 5, 3GPP Rel8.10)	WCDMA	4.87	± 9.6 %
10275	CAB	UMTS-FDD (HSUPA, Subtest 5, 3GPP Rel8.4)	WCDMA	3.96	± 9.6 %
10277	CAA	PHS (QPSK)	PHS	11.81	± 9.6 %
10278	CAA	PHS (QPSK, BW 884MHz, Rolloff 0.5)	PHS	11.81	± 9.6 %
10279	CAA	PHS (QPSK, BW 884MHz, Rolloff 0.38)	PHS	12.18	± 9.6 %
10290	AAB	CDMA2000, RC1, SO55, Full Rate	CDMA2000	3.91	± 9.6 %
10291	AAB	CDMA2000, RC3, SO55, Full Rate	CDMA2000	3.46	± 9.6 %
10292	AAB	CDMA2000, RC3, SO32, Full Rate	CDMA2000	3.39	± 9.6 %
10293	AAB	CDMA2000, RC3, SO3, Full Rate	CDMA2000	3.50	± 9.6 %
10295	AAB	CDMA2000, RC1, SO3, 1/8th Rate 25 fr.	CDMA2000	12.49	± 9.6 %
10297	AAD	LTE-FDD (SC-FDMA, 50% RB, 20 MHz, QPSK)	LTE-FDD	5.81	± 9.6 %
10298	AAD	LTE-FDD (SC-FDMA, 50% RB, 3 MHz, QPSK)	LTE-FDD	5.72	± 9.6 %
10299	AAD	LTE-FDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM)	LTE-FDD	6.39	± 9.6 %

10300	AAD	LTE-FDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM)	LTE-FDD	6.60	± 9.6 %
10301	AAA	IEEE 802.16e WiMAX (29:18, 5ms, 10MHz, QPSK, PUSC)	WiMAX	12.03	± 9.6 %
10302	AAA	IEEE 802.16e WiMAX (29:18, 5ms, 10MHz, QPSK, PUSC, 3 CTRL symbols)	WiMAX	12.57	± 9.6 %
10303	AAA	IEEE 802.16e WiMAX (31:15, 5ms, 10MHz, 64QAM, PUSC)	WiMAX	12.52	± 9.6 %
10304	AAA	IEEE 802.16e WiMAX (29:18, 5ms, 10MHz, 64QAM, PUSC)	WiMAX	11.86	± 9.6 %
10305	AAA	IEEE 802.16e WiMAX (31:15, 10ms, 10MHz, 64QAM, PUSC, 15 symbols)	WiMAX	15.24	± 9.6 %
10306	AAA	IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, 64QAM, PUSC, 18 symbols)	WiMAX	14.67	± 9.6 %
10307	AAA	IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, QPSK, PUSC, 18 symbols)	WiMAX	14.49	± 9.6 %
10308	AAA	IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, 16QAM, PUSC)	WiMAX	14.46	± 9.6 %
10309	AAA	IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, 16QAM, AMC 2x3, 18 symbols)	WiMAX	14.58	± 9.6 %
10310	AAA	IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, QPSK, AMC 2x3, 18 symbols)	WiMAX	14.57	± 9.6 %
10311	AAD	LTE-FDD (SC-FDMA, 100% RB, 15 MHz, QPSK)	LTE-FDD	6.06	± 9.6 %
10313	AAA	iDEN 1:3	iDEN	10.51	± 9.6 %
10314	AAA	iDEN 1:6	iDEN	13.48	± 9.6 %
10315	AAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 96pc duty cycle)	WLAN	1.71	± 9.6 %
10316	AAB	IEEE 802.11g WiFi 2.4 GHz (ERP-OFDM, 6 Mbps, 96pc duty cycle)	WLAN	8.36	± 9.6 %
10317	AAC	IEEE 802.11a WiFi 5 GHz (OFDM, 6 Mbps, 96pc duty cycle)	WLAN	8.36	± 9.6 %
10352	AAA	Pulse Waveform (200Hz, 10%)	Generic	10.00	± 9.6 %
10353	AAA	Pulse Waveform (200Hz, 20%)	Generic	6.99	± 9.6 %
10354	AAA	Pulse Waveform (200Hz, 40%)	Generic	3.98	± 9.6 %
10355	AAA	Pulse Waveform (200Hz, 60%)	Generic	2.22	± 9.6 %
10356	AAA	Pulse Waveform (200Hz, 80%)	Generic	0.97	± 9.6 %
10387	AAA	QPSK Waveform, 1 MHz	Generic	5.10	± 9.6 %
10388	AAA	QPSK Waveform, 10 MHz	Generic	5.22	± 9.6 %
10396	AAA	64-QAM Waveform, 100 kHz	Generic	6.27	± 9.6 %
10399	AAA	64-QAM Waveform, 40 MHz	Generic	6.27	± 9.6 %
10400	AAD	IEEE 802.11ac WiFi (20MHz, 64-QAM, 99pc duty cycle)	WLAN	8.37	± 9.6 %
10401	AAD	IEEE 802.11ac WiFi (40MHz, 64-QAM, 99pc duty cycle)	WLAN	8.60	± 9.6 %
10402	AAD	IEEE 802.11ac WiFi (80MHz, 64-QAM, 99pc duty cycle)	WLAN	8.53	± 9.6 %
10403	AAB	CDMA2000 (1xEV-DO, Rev. 0)	CDMA2000	3.76	± 9.6 %
10404	AAB	CDMA2000 (1xEV-DO, Rev. A)	CDMA2000	3.77	± 9.6 %
10406	AAB	CDMA2000, RC3, SO32, SCH0, Full Rate	CDMA2000	5.22	± 9.6 %
10410	AAF	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9, Subframe Conf=4)	LTE-TDD	7.82	± 9.6 %
10414	AAA	WLAN CCDF, 64-QAM, 40MHz	Generic	8.54	± 9.6 %
10415	AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 99pc duty cycle)	WLAN	1.54	± 9.6 %
10416	AAA	IEEE 802.11g WiFi 2.4 GHz (ERP-OFDM, 6 Mbps, 99pc duty cycle)	WLAN	8.23	± 9.6 %
10417	AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps, 99pc duty cycle)	WLAN	8.23	± 9.6 %
10418	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 99pc duty cycle, Long preamble)	WLAN	8.14	± 9.6 %
10419	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 99pc duty cycle, Short preamble)	WLAN	8.19	± 9.6 %
10422	AAB	IEEE 802.11n (HT Greenfield, 7.2 Mbps, BPSK)	WLAN	8.32	± 9.6 %
10423	AAB	IEEE 802.11n (HT Greenfield, 43.3 Mbps, 16-QAM)	WLAN	8.47	± 9.6 %
10424	AAB	IEEE 802.11n (HT Greenfield, 72.2 Mbps, 64-QAM)	WLAN	8.40	± 9.6 %
10425	AAB	IEEE 802.11n (HT Greenfield, 15 Mbps, BPSK)	WLAN	8.41	± 9.6 %
10426	AAB	IEEE 802.11n (HT Greenfield, 90 Mbps, 16-QAM)	WLAN	8.45	± 9.6 %
10427	AAB	IEEE 802.11n (HT Greenfield, 150 Mbps, 64-QAM)	WLAN	8.41	± 9.6 %
10430	AAD	LTE-FDD (OFDMA, 5 MHz, E-TM 3.1)	LTE-FDD	8.28	± 9.6 %
10431	AAD	LTE-FDD (OFDMA, 10 MHz, E-TM 3.1)	LTE-FDD	8.38	± 9.6 %
10432	AAC	LTE-FDD (OFDMA, 15 MHz, E-TM 3.1)	LTE-FDD	8.34	± 9.6 %
10433	AAC	LTE-FDD (OFDMA, 20 MHz, E-TM 3.1)	LTE-FDD	8.34	± 9.6 %
10434	AAA	W-CDMA (BS Test Model 1, 64 DPCH)	WCDMA	8.60	± 9.6 %
10435	AAF	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.82	± 9.6 %
10447	AAD	LTE-FDD (OFDMA, 5 MHz, E-TM 3.1, Clipping 44%)	LTE-FDD	7.56	± 9.6 %
10448	AAD	LTE-FDD (OFDMA, 10 MHz, E-TM 3.1, Clipping 44%)	LTE-FDD	7.53	± 9.6 %
10449	AAC	LTE-FDD (OFDMA, 15 MHz, E-TM 3.1, Clipping 44%)	LTE-FDD	7.51	± 9.6 %
10450	AAC	LTE-FDD (OFDMA, 20 MHz, E-TM 3.1, Clipping 44%)	LTE-FDD	7.48	± 9.6 %

10451	AAA	W-CDMA (BS Test Model 1, 64 DPCH, Clipping 44%)	WCDMA	7.59	± 9.6 %
10456	AAB	IEEE 802.11ac WiFi (160MHz, 64-QAM, 99pc duty cycle)	WLAN	8.63	± 9.6 %
10457	AAA	UMTS-FDD (DC-HSDPA)	WCDMA	6.62	± 9.6 %
10458	AAA	CDMA2000 (1xEV-DO, Rev. B, 2 carriers)	CDMA2000	6.55	± 9.6 %
10459	AAA	CDMA2000 (1xEV-DO, Rev. B, 3 carriers)	CDMA2000	8.25	± 9.6 %
10460	AAA	UMTS-FDD (WCDMA, AMR)	WCDMA	2.39	± 9.6 %
10461	AAA	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.82	± 9.6 %
10462	AAA	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.30	± 9.6 %
10463	AAA	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.56	± 9.6 %
10464	AAB	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.82	± 9.6 %
10465	AAB	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.32	± 9.6 %
10466	AAB	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.57	± 9.6 %
10467	AAE	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.82	± 9.6 %
10468	AAE	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.32	± 9.6 %
10469	AAE	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.56	± 9.6 %
10470	AAE	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.82	± 9.6 %
10471	AAE	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.32	± 9.6 %
10472	AAE	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.57	± 9.6 %
10473	AAE	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.82	± 9.6 %
10474	AAE	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.32	± 9.6 %
10475	AAE	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.57	± 9.6 %
10477	AAF	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.32	± 9.6 %
10478	AAF	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.57	± 9.6 %
10479	AAA	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.74	± 9.6 %
10480	AAA	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.18	± 9.6 %
10481	AAA	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.45	± 9.6 %
10482	AAB	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.71	± 9.6 %
10483	AAB	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.39	± 9.6 %
10484	AAB	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.47	± 9.6 %
10485	AAE	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.59	± 9.6 %
10486	AAE	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.38	± 9.6 %
10487	AAE	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.60	± 9.6 %
10488	AAE	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.70	± 9.6 %
10489	AAE	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.31	± 9.6 %
10490	AAE	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.54	± 9.6 %
10491	AAE	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.74	± 9.6 %

10492	AAE	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.41	± 9.6 %
10493	AAE	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.55	± 9.6 %
10494	AAF	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.74	± 9.6 %
10495	AAF	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.37	± 9.6 %
10496	AAF	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.54	± 9.6 %
10497	AAA	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.67	± 9.6 %
10498	AAA	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.40	± 9.6 %
10499	AAA	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.68	± 9.6 %
10500	AAB	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.67	± 9.6 %
10501	AAB	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.44	± 9.6 %
10502	AAB	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.52	± 9.6 %
10503	AAE	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.72	± 9.6 %
10504	AAE	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.31	± 9.6 %
10505	AAE	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.54	± 9.6 %
10506	AAE	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.74	± 9.6 %
10507	AAE	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.36	± 9.6 %
10508	AAE	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.55	± 9.6 %
10509	AAE	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.99	± 9.6 %
10510	AAE	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.49	± 9.6 %
10511	AAE	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.51	± 9.6 %
10512	AAF	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.74	± 9.6 %
10513	AAF	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.42	± 9.6 %
10514	AAF	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.45	± 9.6 %
10515	AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps, 99pc duty cycle)	WLAN	1.58	± 9.6 %
10516	AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 99pc duty cycle)	WLAN	1.57	± 9.6 %
10517	AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps, 99pc duty cycle)	WLAN	1.58	± 9.6 %
10518	AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps, 99pc duty cycle)	WLAN	8.23	± 9.6 %
10519	AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps, 99pc duty cycle)	WLAN	8.39	± 9.6 %
10520	AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps, 99pc duty cycle)	WLAN	8.12	± 9.6 %
10521	AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps, 99pc duty cycle)	WLAN	7.97	± 9.6 %
10522	AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps, 99pc duty cycle)	WLAN	8.45	± 9.6 %
10523	AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps, 99pc duty cycle)	WLAN	8.08	± 9.6 %
10524	AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps, 99pc duty cycle)	WLAN	8.27	± 9.6 %
10525	AAB	IEEE 802.11ac WiFi (20MHz, MCS0, 99pc duty cycle)	WLAN	8.36	± 9.6 %
10526	AAB	IEEE 802.11ac WiFi (20MHz, MCS1, 99pc duty cycle)	WLAN	8.42	± 9.6 %
10527	AAB	IEEE 802.11ac WiFi (20MHz, MCS2, 99pc duty cycle)	WLAN	8.21	± 9.6 %
10528	AAB	IEEE 802.11ac WiFi (20MHz, MCS3, 99pc duty cycle)	WLAN	8.36	± 9.6 %
10529	AAB	IEEE 802.11ac WiFi (20MHz, MCS4, 99pc duty cycle)	WLAN	8.36	± 9.6 %
10531	AAB	IEEE 802.11ac WiFi (20MHz, MCS6, 99pc duty cycle)	WLAN	8.43	± 9.6 %
10532	AAB	IEEE 802.11ac WiFi (20MHz, MCS7, 99pc duty cycle)	WLAN	8.29	± 9.6 %
10533	AAB	IEEE 802.11ac WiFi (20MHz, MCS8, 99pc duty cycle)	WLAN	8.38	± 9.6 %
10534	AAB	IEEE 802.11ac WiFi (40MHz, MCS0, 99pc duty cycle)	WLAN	8.45	± 9.6 %

10535	AAB	IEEE 802.11ac WiFi (40MHz, MCS1, 99pc duty cycle)	WLAN	8.45	± 9.6 %
10536	AAB	IEEE 802.11ac WiFi (40MHz, MCS2, 99pc duty cycle)	WLAN	8.32	± 9.6 %
10537	AAB	IEEE 802.11ac WiFi (40MHz, MCS3, 99pc duty cycle)	WLAN	8.44	± 9.6 %
10538	AAB	IEEE 802.11ac WiFi (40MHz, MCS4, 99pc duty cycle)	WLAN	8.54	± 9.6 %
10540	AAB	IEEE 802.11ac WiFi (40MHz, MCS6, 99pc duty cycle)	WLAN	8.39	± 9.6 %
10541	AAB	IEEE 802.11ac WiFi (40MHz, MCS7, 99pc duty cycle)	WLAN	8.46	± 9.6 %
10542	AAB	IEEE 802.11ac WiFi (40MHz, MCS8, 99pc duty cycle)	WLAN	8.65	± 9.6 %
10543	AAB	IEEE 802.11ac WiFi (40MHz, MCS9, 99pc duty cycle)	WLAN	8.65	± 9.6 %
10544	AAB	IEEE 802.11ac WiFi (80MHz, MCS0, 99pc duty cycle)	WLAN	8.47	± 9.6 %
10545	AAB	IEEE 802.11ac WiFi (80MHz, MCS1, 99pc duty cycle)	WLAN	8.55	± 9.6 %
10546	AAB	IEEE 802.11ac WiFi (80MHz, MCS2, 99pc duty cycle)	WLAN	8.35	± 9.6 %
10547	AAB	IEEE 802.11ac WiFi (80MHz, MCS3, 99pc duty cycle)	WLAN	8.49	± 9.6 %
10548	AAB	IEEE 802.11ac WiFi (80MHz, MCS4, 99pc duty cycle)	WLAN	8.37	± 9.6 %
10550	AAB	IEEE 802.11ac WiFi (80MHz, MCS6, 99pc duty cycle)	WLAN	8.38	± 9.6 %
10551	AAB	IEEE 802.11ac WiFi (80MHz, MCS7, 99pc duty cycle)	WLAN	8.50	± 9.6 %
10552	AAB	IEEE 802.11ac WiFi (80MHz, MCS8, 99pc duty cycle)	WLAN	8.42	± 9.6 %
10553	AAB	IEEE 802.11ac WiFi (80MHz, MCS9, 99pc duty cycle)	WLAN	8.45	± 9.6 %
10554	AAC	IEEE 802.11ac WiFi (160MHz, MCS0, 99pc duty cycle)	WLAN	8.48	± 9.6 %
10555	AAC	IEEE 802.11ac WiFi (160MHz, MCS1, 99pc duty cycle)	WLAN	8.47	± 9.6 %
10556	AAC	IEEE 802.11ac WiFi (160MHz, MCS2, 99pc duty cycle)	WLAN	8.50	± 9.6 %
10557	AAC	IEEE 802.11ac WiFi (160MHz, MCS3, 99pc duty cycle)	WLAN	8.52	± 9.6 %
10558	AAC	IEEE 802.11ac WiFi (160MHz, MCS4, 99pc duty cycle)	WLAN	8.61	± 9.6 %
10560	AAC	IEEE 802.11ac WiFi (160MHz, MCS6, 99pc duty cycle)	WLAN	8.73	± 9.6 %
10561	AAC	IEEE 802.11ac WiFi (160MHz, MCS7, 99pc duty cycle)	WLAN	8.56	± 9.6 %
10562	AAC	IEEE 802.11ac WiFi (160MHz, MCS8, 99pc duty cycle)	WLAN	8.69	± 9.6 %
10563	AAC	IEEE 802.11ac WiFi (160MHz, MCS9, 99pc duty cycle)	WLAN	8.77	± 9.6 %
10564	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 9 Mbps, 99pc duty cycle)	WLAN	8.25	± 9.6 %
10565	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 12 Mbps, 99pc duty cycle)	WLAN	8.45	± 9.6 %
10566	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 18 Mbps, 99pc duty cycle)	WLAN	8.13	± 9.6 %
10567	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 24 Mbps, 99pc duty cycle)	WLAN	8.00	± 9.6 %
10568	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 36 Mbps, 99pc duty cycle)	WLAN	8.37	± 9.6 %
10569	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 48 Mbps, 99pc duty cycle)	WLAN	8.10	± 9.6 %
10570	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 54 Mbps, 99pc duty cycle)	WLAN	8.30	± 9.6 %
10571	AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 90pc duty cycle)	WLAN	1.99	± 9.6 %
10572	AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps, 90pc duty cycle)	WLAN	1.99	± 9.6 %
10573	AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 90pc duty cycle)	WLAN	1.98	± 9.6 %
10574	AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps, 90pc duty cycle)	WLAN	1.98	± 9.6 %
10575	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 90pc duty cycle)	WLAN	8.59	± 9.6 %
10576	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 9 Mbps, 90pc duty cycle)	WLAN	8.60	± 9.6 %
10577	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 12 Mbps, 90pc duty cycle)	WLAN	8.70	± 9.6 %
10578	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 18 Mbps, 90pc duty cycle)	WLAN	8.49	± 9.6 %
10579	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 24 Mbps, 90pc duty cycle)	WLAN	8.36	± 9.6 %
10580	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 36 Mbps, 90pc duty cycle)	WLAN	8.76	± 9.6 %
10581	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 48 Mbps, 90pc duty cycle)	WLAN	8.35	± 9.6 %
10582	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 54 Mbps, 90pc duty cycle)	WLAN	8.67	± 9.6 %
10583	AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps, 90pc duty cycle)	WLAN	8.59	± 9.6 %
10584	AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps, 90pc duty cycle)	WLAN	8.60	± 9.6 %
10585	AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps, 90pc duty cycle)	WLAN	8.70	± 9.6 %
10586	AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps, 90pc duty cycle)	WLAN	8.49	± 9.6 %
10587	AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps, 90pc duty cycle)	WLAN	8.36	± 9.6 %

10588	AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps, 90pc duty cycle)	WLAN	8.76	± 9.6 %
10589	AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps, 90pc duty cycle)	WLAN	8.35	± 9.6 %
10590	AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps, 90pc duty cycle)	WLAN	8.67	± 9.6 %
10591	AAB	IEEE 802.11n (HT Mixed, 20MHz, MCS0, 90pc duty cycle)	WLAN	8.63	± 9.6 %
10592	AAB	IEEE 802.11n (HT Mixed, 20MHz, MCS1, 90pc duty cycle)	WLAN	8.79	± 9.6 %
10593	AAB	IEEE 802.11n (HT Mixed, 20MHz, MCS2, 90pc duty cycle)	WLAN	8.64	± 9.6 %
10594	AAB	IEEE 802.11n (HT Mixed, 20MHz, MCS3, 90pc duty cycle)	WLAN	8.74	± 9.6 %
10595	AAB	IEEE 802.11n (HT Mixed, 20MHz, MCS4, 90pc duty cycle)	WLAN	8.74	± 9.6 %
10596	AAB	IEEE 802.11n (HT Mixed, 20MHz, MCS5, 90pc duty cycle)	WLAN	8.71	± 9.6 %
10597	AAB	IEEE 802.11n (HT Mixed, 20MHz, MCS6, 90pc duty cycle)	WLAN	8.72	± 9.6 %
10598	AAB	IEEE 802.11n (HT Mixed, 20MHz, MCS7, 90pc duty cycle)	WLAN	8.50	± 9.6 %
10599	AAB	IEEE 802.11n (HT Mixed, 40MHz, MCS0, 90pc duty cycle)	WLAN	8.79	± 9.6 %
10600	AAB	IEEE 802.11n (HT Mixed, 40MHz, MCS1, 90pc duty cycle)	WLAN	8.88	± 9.6 %
10601	AAB	IEEE 802.11n (HT Mixed, 40MHz, MCS2, 90pc duty cycle)	WLAN	8.82	± 9.6 %
10602	AAB	IEEE 802.11n (HT Mixed, 40MHz, MCS3, 90pc duty cycle)	WLAN	8.94	± 9.6 %
10603	AAB	IEEE 802.11n (HT Mixed, 40MHz, MCS4, 90pc duty cycle)	WLAN	9.03	± 9.6 %
10604	AAB	IEEE 802.11n (HT Mixed, 40MHz, MCS5, 90pc duty cycle)	WLAN	8.76	± 9.6 %
10605	AAB	IEEE 802.11n (HT Mixed, 40MHz, MCS6, 90pc duty cycle)	WLAN	8.97	± 9.6 %
10606	AAB	IEEE 802.11n (HT Mixed, 40MHz, MCS7, 90pc duty cycle)	WLAN	8.82	± 9.6 %
10607	AAB	IEEE 802.11ac WiFi (20MHz, MCS0, 90pc duty cycle)	WLAN	8.64	± 9.6 %
10608	AAB	IEEE 802.11ac WiFi (20MHz, MCS1, 90pc duty cycle)	WLAN	8.77	± 9.6 %
10609	AAB	IEEE 802.11ac WiFi (20MHz, MCS2, 90pc duty cycle)	WLAN	8.57	± 9.6 %
10610	AAB	IEEE 802.11ac WiFi (20MHz, MCS3, 90pc duty cycle)	WLAN	8.78	± 9.6 %
10611	AAB	IEEE 802.11ac WiFi (20MHz, MCS4, 90pc duty cycle)	WLAN	8.70	± 9.6 %
10612	AAB	IEEE 802.11ac WiFi (20MHz, MCS5, 90pc duty cycle)	WLAN	8.77	± 9.6 %
10613	AAB	IEEE 802.11ac WiFi (20MHz, MCS6, 90pc duty cycle)	WLAN	8.94	± 9.6 %
10614	AAB	IEEE 802.11ac WiFi (20MHz, MCS7, 90pc duty cycle)	WLAN	8.59	± 9.6 %
10615	AAB	IEEE 802.11ac WiFi (20MHz, MCS8, 90pc duty cycle)	WLAN	8.82	± 9.6 %
10616	AAB	IEEE 802.11ac WiFi (40MHz, MCS0, 90pc duty cycle)	WLAN	8.82	± 9.6 %
10617	AAB	IEEE 802.11ac WiFi (40MHz, MCS1, 90pc duty cycle)	WLAN	8.81	± 9.6 %
10618	AAB	IEEE 802.11ac WiFi (40MHz, MCS2, 90pc duty cycle)	WLAN	8.58	± 9.6 %
10619	AAB	IEEE 802.11ac WiFi (40MHz, MCS3, 90pc duty cycle)	WLAN	8.86	± 9.6 %
10620	AAB	IEEE 802.11ac WiFi (40MHz, MCS4, 90pc duty cycle)	WLAN	8.87	± 9.6 %
10621	AAB	IEEE 802.11ac WiFi (40MHz, MCS5, 90pc duty cycle)	WLAN	8.77	± 9.6 %
10622	AAB	IEEE 802.11ac WiFi (40MHz, MCS6, 90pc duty cycle)	WLAN	8.68	± 9.6 %
10623	AAB	IEEE 802.11ac WiFi (40MHz, MCS7, 90pc duty cycle)	WLAN	8.82	± 9.6 %
10624	AAB	IEEE 802.11ac WiFi (40MHz, MCS8, 90pc duty cycle)	WLAN	8.96	± 9.6 %
10625	AAB	IEEE 802.11ac WiFi (40MHz, MCS9, 90pc duty cycle)	WLAN	8.96	± 9.6 %
10626	AAB	IEEE 802.11ac WiFi (80MHz, MCS0, 90pc duty cycle)	WLAN	8.83	± 9.6 %
10627	AAB	IEEE 802.11ac WiFi (80MHz, MCS1, 90pc duty cycle)	WLAN	8.88	± 9.6 %
10628	AAB	IEEE 802.11ac WiFi (80MHz, MCS2, 90pc duty cycle)	WLAN	8.71	± 9.6 %
10629	AAB	IEEE 802.11ac WiFi (80MHz, MCS3, 90pc duty cycle)	WLAN	8.85	± 9.6 %
10630	AAB	IEEE 802.11ac WiFi (80MHz, MCS4, 90pc duty cycle)	WLAN	8.72	± 9.6 %
10631	AAB	IEEE 802.11ac WiFi (80MHz, MCS5, 90pc duty cycle)	WLAN	8.81	± 9.6 %
10632	AAB	IEEE 802.11ac WiFi (80MHz, MCS6, 90pc duty cycle)	WLAN	8.74	± 9.6 %
10633	AAB	IEEE 802.11ac WiFi (80MHz, MCS7, 90pc duty cycle)	WLAN	8.83	± 9.6 %
10634	AAB	IEEE 802.11ac WiFi (80MHz, MCS8, 90pc duty cycle)	WLAN	8.80	± 9.6 %
10635	AAB	IEEE 802.11ac WiFi (80MHz, MCS9, 90pc duty cycle)	WLAN	8.81	± 9.6 %
10636	AAC	IEEE 802.11ac WiFi (160MHz, MCS0, 90pc duty cycle)	WLAN	8.83	± 9.6 %
10637	AAC	IEEE 802.11ac WiFi (160MHz, MCS1, 90pc duty cycle)	WLAN	8.79	± 9.6 %
10638	AAC	IEEE 802.11ac WiFi (160MHz, MCS2, 90pc duty cycle)	WLAN	8.86	± 9.6 %
10639	AAC	IEEE 802.11ac WiFi (160MHz, MCS3, 90pc duty cycle)	WLAN	8.85	± 9.6 %
10640	AAC	IEEE 802.11ac WiFi (160MHz, MCS4, 90pc duty cycle)	WLAN	8.98	± 9.6 %
10641	AAC	IEEE 802.11ac WiFi (160MHz, MCS5, 90pc duty cycle)	WLAN	9.06	± 9.6 %
10642	AAC	IEEE 802.11ac WiFi (160MHz, MCS6, 90pc duty cycle)	WLAN	9.06	± 9.6 %
10643	AAC	IEEE 802.11ac WiFi (160MHz, MCS7, 90pc duty cycle)	WLAN	8.89	± 9.6 %
10644	AAC	IEEE 802.11ac WiFi (160MHz, MCS8, 90pc duty cycle)	WLAN	9.05	± 9.6 %
10645	AAC	IEEE 802.11ac WiFi (160MHz, MCS9, 90pc duty cycle)	WLAN	9.11	± 9.6 %
10646	AAF	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK, UL Subframe=2,7)	LTE-TDD	11.96	± 9.6 %
10647	AAF	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK, UL Subframe=2,7)	LTE-TDD	11.96	± 9.6 %
10648	AAA	CDMA2000 (1x Advanced)	CDMA2000	3.45	± 9.6 %
10652	AAD	LTE-TDD (OFDMA, 5 MHz, E-TM 3.1, Clipping 44%)	LTE-TDD	6.91	± 9.6 %
10653	AAD	LTE-TDD (OFDMA, 10 MHz, E-TM 3.1, Clipping 44%)	LTE-TDD	7.42	± 9.6 %
10654	AAD	LTE-TDD (OFDMA, 15 MHz, E-TM 3.1, Clipping 44%)	LTE-TDD	6.96	± 9.6 %

10655	AAE	LTE-TDD (OFDMA, 20 MHz, E-TM 3.1, Clipping 44%)	LTE-TDD	7.21	± 9.6 %
10658	AAA	Pulse Waveform (200Hz, 10%)	Test	10.00	± 9.6 %
10659	AAA	Pulse Waveform (200Hz, 20%)	Test	6.99	± 9.6 %
10660	AAA	Pulse Waveform (200Hz, 40%)	Test	3.98	± 9.6 %
10661	AAA	Pulse Waveform (200Hz, 60%)	Test	2.22	± 9.6 %
10662	AAA	Pulse Waveform (200Hz, 80%)	Test	0.97	± 9.6 %
10670	AAA	Bluetooth Low Energy	Bluetooth	2.19	± 9.6 %
10671	AAA	IEEE 802.11ax (20MHz, MCS0, 90pc duty cycle)	WLAN	9.09	± 9.6 %
10672	AAA	IEEE 802.11ax (20MHz, MCS1, 90pc duty cycle)	WLAN	8.57	± 9.6 %
10673	AAA	IEEE 802.11ax (20MHz, MCS2, 90pc duty cycle)	WLAN	8.78	± 9.6 %
10674	AAA	IEEE 802.11ax (20MHz, MCS3, 90pc duty cycle)	WLAN	8.74	± 9.6 %
10675	AAA	IEEE 802.11ax (20MHz, MCS4, 90pc duty cycle)	WLAN	8.90	± 9.6 %
10676	AAA	IEEE 802.11ax (20MHz, MCS5, 90pc duty cycle)	WLAN	8.77	± 9.6 %
10677	AAA	IEEE 802.11ax (20MHz, MCS6, 90pc duty cycle)	WLAN	8.73	± 9.6 %
10678	AAA	IEEE 802.11ax (20MHz, MCS7, 90pc duty cycle)	WLAN	8.78	± 9.6 %
10679	AAA	IEEE 802.11ax (20MHz, MCS8, 90pc duty cycle)	WLAN	8.89	± 9.6 %
10680	AAA	IEEE 802.11ax (20MHz, MCS9, 90pc duty cycle)	WLAN	8.80	± 9.6 %
10681	AAA	IEEE 802.11ax (20MHz, MCS10, 90pc duty cycle)	WLAN	8.62	± 9.6 %
10682	AAA	IEEE 802.11ax (20MHz, MCS11, 90pc duty cycle)	WLAN	8.83	± 9.6 %
10683	AAA	IEEE 802.11ax (20MHz, MCS0, 99pc duty cycle)	WLAN	8.42	± 9.6 %
10684	AAA	IEEE 802.11ax (20MHz, MCS1, 99pc duty cycle)	WLAN	8.26	± 9.6 %
10685	AAA	IEEE 802.11ax (20MHz, MCS2, 99pc duty cycle)	WLAN	8.33	± 9.6 %
10686	AAA	IEEE 802.11ax (20MHz, MCS3, 99pc duty cycle)	WLAN	8.28	± 9.6 %
10687	AAA	IEEE 802.11ax (20MHz, MCS4, 99pc duty cycle)	WLAN	8.45	± 9.6 %
10688	AAA	IEEE 802.11ax (20MHz, MCS5, 99pc duty cycle)	WLAN	8.29	± 9.6 %
10689	AAA	IEEE 802.11ax (20MHz, MCS6, 99pc duty cycle)	WLAN	8.55	± 9.6 %
10690	AAA	IEEE 802.11ax (20MHz, MCS7, 99pc duty cycle)	WLAN	8.29	± 9.6 %
10691	AAA	IEEE 802.11ax (20MHz, MCS8, 99pc duty cycle)	WLAN	8.25	± 9.6 %
10692	AAA	IEEE 802.11ax (20MHz, MCS9, 99pc duty cycle)	WLAN	8.29	± 9.6 %
10693	AAA	IEEE 802.11ax (20MHz, MCS10, 99pc duty cycle)	WLAN	8.25	± 9.6 %
10694	AAA	IEEE 802.11ax (20MHz, MCS11, 99pc duty cycle)	WLAN	8.57	± 9.6 %
10695	AAA	IEEE 802.11ax (40MHz, MCS0, 90pc duty cycle)	WLAN	8.78	± 9.6 %
10696	AAA	IEEE 802.11ax (40MHz, MCS1, 90pc duty cycle)	WLAN	8.91	± 9.6 %
10697	AAA	IEEE 802.11ax (40MHz, MCS2, 90pc duty cycle)	WLAN	8.61	± 9.6 %
10698	AAA	IEEE 802.11ax (40MHz, MCS3, 90pc duty cycle)	WLAN	8.89	± 9.6 %
10699	AAA	IEEE 802.11ax (40MHz, MCS4, 90pc duty cycle)	WLAN	8.82	± 9.6 %
10700	AAA	IEEE 802.11ax (40MHz, MCS5, 90pc duty cycle)	WLAN	8.73	± 9.6 %
10701	AAA	IEEE 802.11ax (40MHz, MCS6, 90pc duty cycle)	WLAN	8.86	± 9.6 %
10702	AAA	IEEE 802.11ax (40MHz, MCS7, 90pc duty cycle)	WLAN	8.70	± 9.6 %
10703	AAA	IEEE 802.11ax (40MHz, MCS8, 90pc duty cycle)	WLAN	8.82	± 9.6 %
10704	AAA	IEEE 802.11ax (40MHz, MCS9, 90pc duty cycle)	WLAN	8.56	± 9.6 %
10705	AAA	IEEE 802.11ax (40MHz, MCS10, 90pc duty cycle)	WLAN	8.69	± 9.6 %
10706	AAA	IEEE 802.11ax (40MHz, MCS11, 90pc duty cycle)	WLAN	8.66	± 9.6 %
10707	AAA	IEEE 802.11ax (40MHz, MCS0, 99pc duty cycle)	WLAN	8.32	± 9.6 %
10708	AAA	IEEE 802.11ax (40MHz, MCS1, 99pc duty cycle)	WLAN	8.55	± 9.6 %
10709	AAA	IEEE 802.11ax (40MHz, MCS2, 99pc duty cycle)	WLAN	8.33	± 9.6 %
10710	AAA	IEEE 802.11ax (40MHz, MCS3, 99pc duty cycle)	WLAN	8.29	± 9.6 %
10711	AAA	IEEE 802.11ax (40MHz, MCS4, 99pc duty cycle)	WLAN	8.39	± 9.6 %
10712	AAA	IEEE 802.11ax (40MHz, MCS5, 99pc duty cycle)	WLAN	8.67	± 9.6 %
10713	AAA	IEEE 802.11ax (40MHz, MCS6, 99pc duty cycle)	WLAN	8.33	± 9.6 %
10714	AAA	IEEE 802.11ax (40MHz, MCS7, 99pc duty cycle)	WLAN	8.26	± 9.6 %
10715	AAA	IEEE 802.11ax (40MHz, MCS8, 99pc duty cycle)	WLAN	8.45	± 9.6 %
10716	AAA	IEEE 802.11ax (40MHz, MCS9, 99pc duty cycle)	WLAN	8.30	± 9.6 %
10717	AAA	IEEE 802.11ax (40MHz, MCS10, 99pc duty cycle)	WLAN	8.48	± 9.6 %
10718	AAA	IEEE 802.11ax (40MHz, MCS11, 99pc duty cycle)	WLAN	8.24	± 9.6 %
10719	AAA	IEEE 802.11ax (80MHz, MCS0, 90pc duty cycle)	WLAN	8.81	± 9.6 %
10720	AAA	IEEE 802.11ax (80MHz, MCS1, 90pc duty cycle)	WLAN	8.87	± 9.6 %
10721	AAA	IEEE 802.11ax (80MHz, MCS2, 90pc duty cycle)	WLAN	8.76	± 9.6 %
10722	AAA	IEEE 802.11ax (80MHz, MCS3, 90pc duty cycle)	WLAN	8.55	± 9.6 %
10723	AAA	IEEE 802.11ax (80MHz, MCS4, 90pc duty cycle)	WLAN	8.70	± 9.6 %
10724	AAA	IEEE 802.11ax (80MHz, MCS5, 90pc duty cycle)	WLAN	8.90	± 9.6 %
10725	AAA	IEEE 802.11ax (80MHz, MCS6, 90pc duty cycle)	WLAN	8.74	± 9.6 %
10726	AAA	IEEE 802.11ax (80MHz, MCS7, 90pc duty cycle)	WLAN	8.72	± 9.6 %
10727	AAA	IEEE 802.11ax (80MHz, MCS8, 90pc duty cycle)	WLAN	8.66	± 9.6 %

10728	AAA	IEEE 802.11ax (80MHz, MCS9, 90pc duty cycle)	WLAN	8.65	± 9.6 %
10729	AAA	IEEE 802.11ax (80MHz, MCS10, 90pc duty cycle)	WLAN	8.64	± 9.6 %
10730	AAA	IEEE 802.11ax (80MHz, MCS11, 90pc duty cycle)	WLAN	8.67	± 9.6 %
10731	AAA	IEEE 802.11ax (80MHz, MCS0, 99pc duty cycle)	WLAN	8.42	± 9.6 %
10732	AAA	IEEE 802.11ax (80MHz, MCS1, 99pc duty cycle)	WLAN	8.46	± 9.6 %
10733	AAA	IEEE 802.11ax (80MHz, MCS2, 99pc duty cycle)	WLAN	8.40	± 9.6 %
10734	AAA	IEEE 802.11ax (80MHz, MCS3, 99pc duty cycle)	WLAN	8.25	± 9.6 %
10735	AAA	IEEE 802.11ax (80MHz, MCS4, 99pc duty cycle)	WLAN	8.33	± 9.6 %
10736	AAA	IEEE 802.11ax (80MHz, MCS5, 99pc duty cycle)	WLAN	8.27	± 9.6 %
10737	AAA	IEEE 802.11ax (80MHz, MCS6, 99pc duty cycle)	WLAN	8.36	± 9.6 %
10738	AAA	IEEE 802.11ax (80MHz, MCS7, 99pc duty cycle)	WLAN	8.42	± 9.6 %
10739	AAA	IEEE 802.11ax (80MHz, MCS8, 99pc duty cycle)	WLAN	8.29	± 9.6 %
10740	AAA	IEEE 802.11ax (80MHz, MCS9, 99pc duty cycle)	WLAN	8.48	± 9.6 %
10741	AAA	IEEE 802.11ax (80MHz, MCS10, 99pc duty cycle)	WLAN	8.40	± 9.6 %
10742	AAA	IEEE 802.11ax (80MHz, MCS11, 99pc duty cycle)	WLAN	8.43	± 9.6 %
10743	AAA	IEEE 802.11ax (160MHz, MCS0, 90pc duty cycle)	WLAN	8.94	± 9.6 %
10744	AAA	IEEE 802.11ax (160MHz, MCS1, 90pc duty cycle)	WLAN	9.16	± 9.6 %
10745	AAA	IEEE 802.11ax (160MHz, MCS2, 90pc duty cycle)	WLAN	8.93	± 9.6 %
10746	AAA	IEEE 802.11ax (160MHz, MCS3, 90pc duty cycle)	WLAN	9.11	± 9.6 %
10747	AAA	IEEE 802.11ax (160MHz, MCS4, 90pc duty cycle)	WLAN	9.04	± 9.6 %
10748	AAA	IEEE 802.11ax (160MHz, MCS5, 90pc duty cycle)	WLAN	8.93	± 9.6 %
10749	AAA	IEEE 802.11ax (160MHz, MCS6, 90pc duty cycle)	WLAN	8.90	± 9.6 %
10750	AAA	IEEE 802.11ax (160MHz, MCS7, 90pc duty cycle)	WLAN	8.79	± 9.6 %
10751	AAA	IEEE 802.11ax (160MHz, MCS8, 90pc duty cycle)	WLAN	8.82	± 9.6 %
10752	AAA	IEEE 802.11ax (160MHz, MCS9, 90pc duty cycle)	WLAN	8.81	± 9.6 %
10753	AAA	IEEE 802.11ax (160MHz, MCS10, 90pc duty cycle)	WLAN	9.00	± 9.6 %
10754	AAA	IEEE 802.11ax (160MHz, MCS11, 90pc duty cycle)	WLAN	8.94	± 9.6 %
10755	AAA	IEEE 802.11ax (160MHz, MCS0, 99pc duty cycle)	WLAN	8.64	± 9.6 %
10756	AAA	IEEE 802.11ax (160MHz, MCS1, 99pc duty cycle)	WLAN	8.77	± 9.6 %
10757	AAA	IEEE 802.11ax (160MHz, MCS2, 99pc duty cycle)	WLAN	8.77	± 9.6 %
10758	AAA	IEEE 802.11ax (160MHz, MCS3, 99pc duty cycle)	WLAN	8.69	± 9.6 %
10759	AAA	IEEE 802.11ax (160MHz, MCS4, 99pc duty cycle)	WLAN	8.58	± 9.6 %
10760	AAA	IEEE 802.11ax (160MHz, MCS5, 99pc duty cycle)	WLAN	8.49	± 9.6 %
10761	AAA	IEEE 802.11ax (160MHz, MCS6, 99pc duty cycle)	WLAN	8.58	± 9.6 %
10762	AAA	IEEE 802.11ax (160MHz, MCS7, 99pc duty cycle)	WLAN	8.49	± 9.6 %
10763	AAA	IEEE 802.11ax (160MHz, MCS8, 99pc duty cycle)	WLAN	8.53	± 9.6 %
10764	AAA	IEEE 802.11ax (160MHz, MCS9, 99pc duty cycle)	WLAN	8.54	± 9.6 %
10765	AAA	IEEE 802.11ax (160MHz, MCS10, 99pc duty cycle)	WLAN	8.54	± 9.6 %
10766	AAA	IEEE 802.11ax (160MHz, MCS11, 99pc duty cycle)	WLAN	8.51	± 9.6 %

^E Uncertainty is determined using the max. deviation from linear response applying rectangular distribution and is expressed for the square of the field value.

Appendix D. Photographs of EUT and Setup

The setup photographs for SAR testing are shown as follows.

FCC SAR Test Report

<Photographs of EUT>

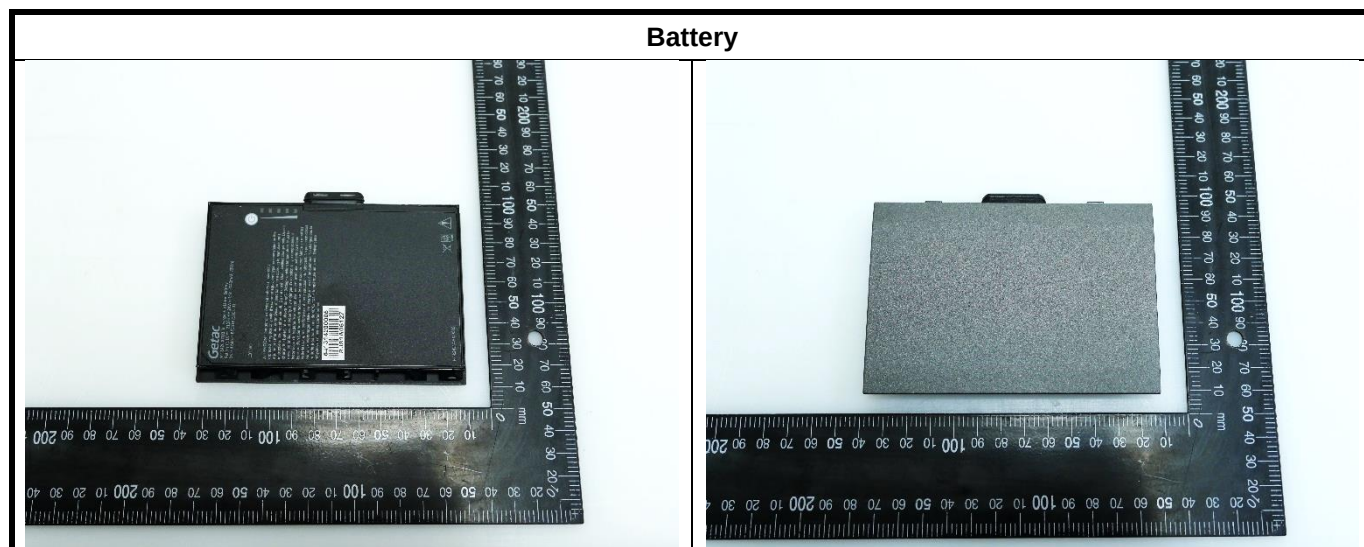
Laptop PC Mode



Tablet PC Mode

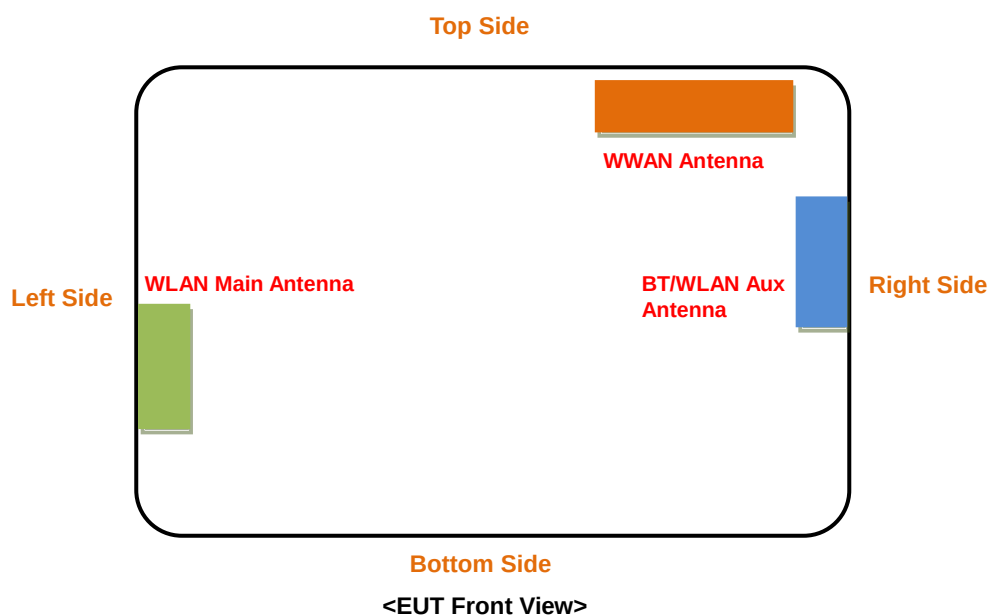


FCC SAR Test Report



<Antenna Location>

Tablet PC Mode

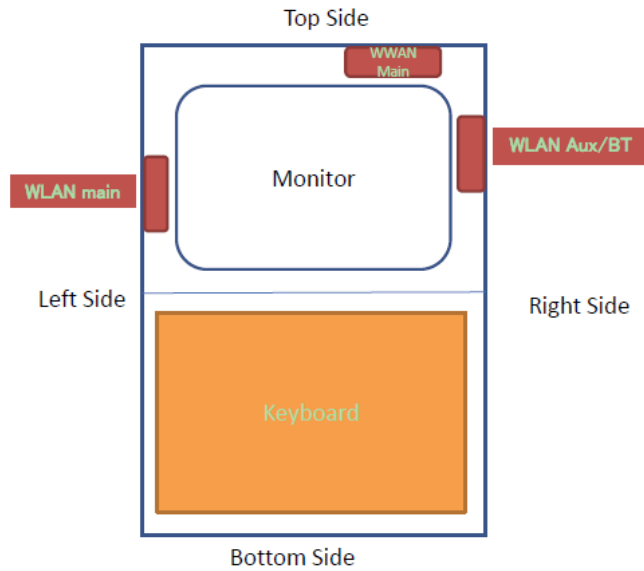


The separation distance for antenna to edge:

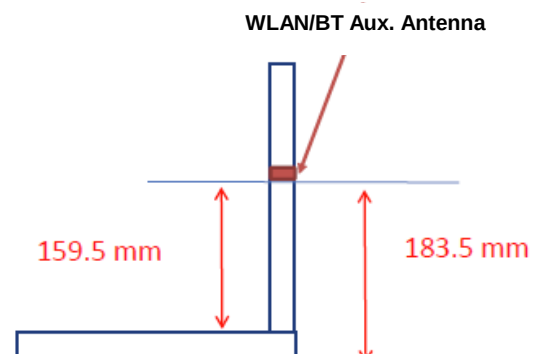
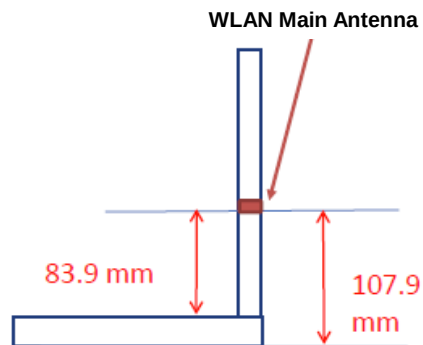
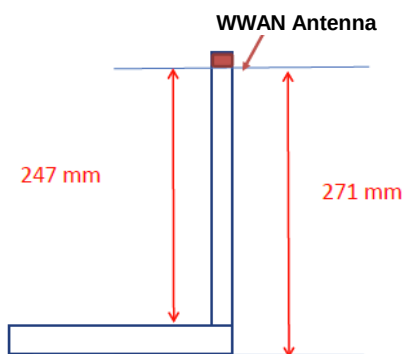
Antenna	To Top Side (mm)	To Bottom Side (mm)	To Left Side (mm)	To Right Side (mm)
WWAN	0	208	217	17
WLAN Ant0	130.5	44.9	0	311
BT/ WLAN Ant1.	78.5	120.5	311	0

FCC SAR Test Report

Laptop PC Mode



Antenna	To Top Side (mm)	To Bottom Side (mm)	To Left Side (mm)	To Right Side (mm)
WWAN	0	208	217	17
WLAN Main	130.5	44.9	0	311
BT/ WLAN Aux.	78.5	120.5	311	0



FCC SAR Test Report

<Photographs of SAR Setup>



**Body - Top Side of EUT at 0 mm
(Tablet PC Mode)**