

SAR TEST REPORT

The following samples were submitted and identified on behalf of the client as:

Equipment Under Test	Tablet
Brand Name	HP
Model No.	HSN-I06C
Company Name	HP Inc.
Company Address	3390 East Harmony Road Fort Collins, Colorado 80528 United States
Standards	IEEE /ANSI C95.1-1992, IEEE 1528 2013, KDB616217D04v01r02,KDB865664D01v01r04, KDB865664D02v01r02,KDB941225D01v03r01, KDB941225D05v02r05,KDB447498D01v06,
FCC ID	B94HNI06CAS
Date of Receipt	Apr. 10, 2017
Date of Test(s)	Mar. 22, 2018 ~ Mar. 28, 2018 Mar. 22, 2018 ~ Apr. 18, 2018
Date of Issue	May. 31, 2018

Remarks:

This report details the results of the testing carried out on one sample, the results contained in this test report do not relate to other samples of the same product. The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in this report.

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Signed on behalf of SGS

Sr. Engineer

Matt Kuo

Date: May. 31, 2018

Supervisor

John Yeh

Date: May. 31, 2018

Revision History

Report Number	Revision	Description	Issue Date
EN/2017/40008	Rev.00	Initial creation of document	Apr. 25, 2018
EN/2017/40008	Rev.01	1 st modification	May. 17, 2018
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1. Preface

The FCC SAR limit is defined based on time averaged exposure. The WWAN module embedded in the equipment under test is enabled with Qualcomm® Smart Transmit which controls and manages transmitting power in real time to ensure the time averaged 1gSAR is in compliance with the FCC SAR requirement all times. Therefore, in this report, the SAR compliance for WWAN radios is assessed based on maximum time averaged power, and all the relevant FCC exclusion criteria are also applied on a time average power basis.

The validation of the Smart Transmit algorithm is performed by Qualcomm Technologies, Inc. and reported in a separate document.

The equipment under test (EUT) supports simultaneous transmission of WWAN, BT and WLAN. However, Qualcomm® Smart Transmit algorithm for time-averaging SAR is only applied to WWAN module embedded in the EUT, BT/WLAN modules do not have Smart Transmit feature.

For WLAN/BT, since the EUT RF hardware/software in this Report No.:EN201740008 is the same with that of FCC ID: PD98265D2, the WLAN/BT SAR evaluation performed in the WLAN/BT SAR report of FCC ID: PD98265D2 is leveraged in this report. The WLAN/BT SAR report of FCC ID: PD98265D2 is attached in Appendix F. Note this HP 2-in-1 device(s) HSN-I06C used for independent WWAN and WLAN testing contains both WWAN and WLAN transmitters and all associated antennas.

The RF exposure assessment for simultaneous transmission of WWAN, BT and WLAN is performed in this report.

2. General Information

2.1 Testing Laboratory

SGS Taiwan Ltd. Electronics & Communication Laboratory	
No. 2, Keji 1 st Rd., Guishan Township, Taoyuan County, 33383, Taiwan	
Tel	+886-2-2299-3279
Fax	+886-2-2298-0488
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2.2 Details of Applicant

Applicant's Name	HP Inc.
Applicant's Address	1501 Page Mill Road, Palo Alto, CA 94304, USA
Contact	Sam Lin
Tel.	+886-2-3789-6331
Fax	N/A
E-mail	sam.lin2@hp.com

2.3 Description of Equipment Under Test (EUT)

Equipment Under Test	Tablet	
Brand Name	HP	
Device Information	The device is a 2-in-1 device ¹	
Model No.	HSN-I06C	
FCC ID	B94HNI06CAS	
Integrated Module	WWAN ²	Brand Name : FOXCONN Model Name : T77W595
	WLAN/BT	Brand Name : Intel Model Name : 8265D2W
Mode of Operation	<input checked="" type="checkbox"/> WCDMA <input checked="" type="checkbox"/> HSDPA <input checked="" type="checkbox"/> HSUPA <input checked="" type="checkbox"/> LTE FDD <input checked="" type="checkbox"/> WLAN802.11 a/b/g/n/ac (20M/40M/80M) <input checked="" type="checkbox"/> Bluetooth	
Duty Cycle	WCDMA / HSDPA / HSUPA	1
	LTE FDD	1
	WLAN802.11 a/b/g/n/ac	1
	Bluetooth	1

Note:

1. A keyboard may be combined with the tablet to operated in laptop mode. WWAN/WLAN antennas to user will be larger than 20cm when operating in laptop mode. Hence, SAR test for laptop mode can be excluded and SAR shall be measured with the tablet touching the flat phantom based on KDB616217 D04 v01r02 4.3. All SAR tests are performed at 0mm clearance.
2. Foxconn WWAN module (T77W595) contains Qualcomm MDM9625 modem and is integrated with Qualcomm M9625AAATWNLBD3036103501.1 software build which Qualcomm® Smart Transmit is enabled.

TX Frequency Range (MHz)	WCDMA Band II	1850	—	1910
	WCDMA Band IV	1710	—	1750
	WCDMA Band V	824	—	849
	LTE FDD Band 2	1850	—	1910
	LTE FDD Band 4	1710	—	1755
	LTE FDD Band 5	824	—	849
	LTE FDD Band 7	2500	—	2570
	LTE FDD Band 12	699	—	716
	LTE FDD Band 17	704	—	716
	WiFi 2.4GHz	2400	—	2483.3
	WiFi 5GHz	5150		5850
	Bluetooth	2400	—	2483.3
	Channel Number (ARFCN)	WCDMA Band II	9262	—
WCDMA Band IV		1312	—	1513
WCDMA Band V		4132	—	4233
LTE FDD Band 2		18607	—	19193
LTE FDD Band 4		19957	—	20393
LTE FDD Band 5		20407	—	20643
LTE FDD Band 7		20775	—	21425
LTE FDD Band 12		23017	—	23173
LTE FDD Band 17		23755	—	23825
WiFi 2.4GHz		1	—	11
WiFi 5GHz		36	—	165
Bluetooth		0	—	78

2.4 SAR Test Environment

Ambient Temperature: $22 \pm 2^\circ \text{C}$
Tissue Simulating Liquid: $22 \pm 2^\circ \text{C}$

2.5 The SAR Measurement System

A block diagram of the SAR measurement System is given in Fig. a. This SAR Measurement System uses a Computer-controlled 3-D stepper motor system (SPEAG DASY 5 professional system). The model EX3DV4 field probe is used to determine the internal electric fields. The SAR can be obtained from the equation $\text{SAR} = \sigma (|E_i|^2) / \rho$ where σ and ρ are the conductivity and mass density of the tissue-simulant.

The DASY 5 system for performing compliance tests consists of the following items:

1. A standard high precision 6-axis robot (Staubli RX family) with controller, teach pendant and software. An arm extension is for accommodating the data acquisition electronics (DAE).
2. A dosimetric probe, i.e., an isotropic E-field probe optimized and calibrated for usage in tissue simulating liquid. The probe is equipped with an optical surface detector system.
3. A data acquisition electronics (DAE) which performs the signal amplification, signal multiplexing, AD-conversion, offset measurements, mechanical surface detection, collision detection, etc. The unit is battery powered with standard or rechargeable batteries. The signal is optically transmitted to the EOC.

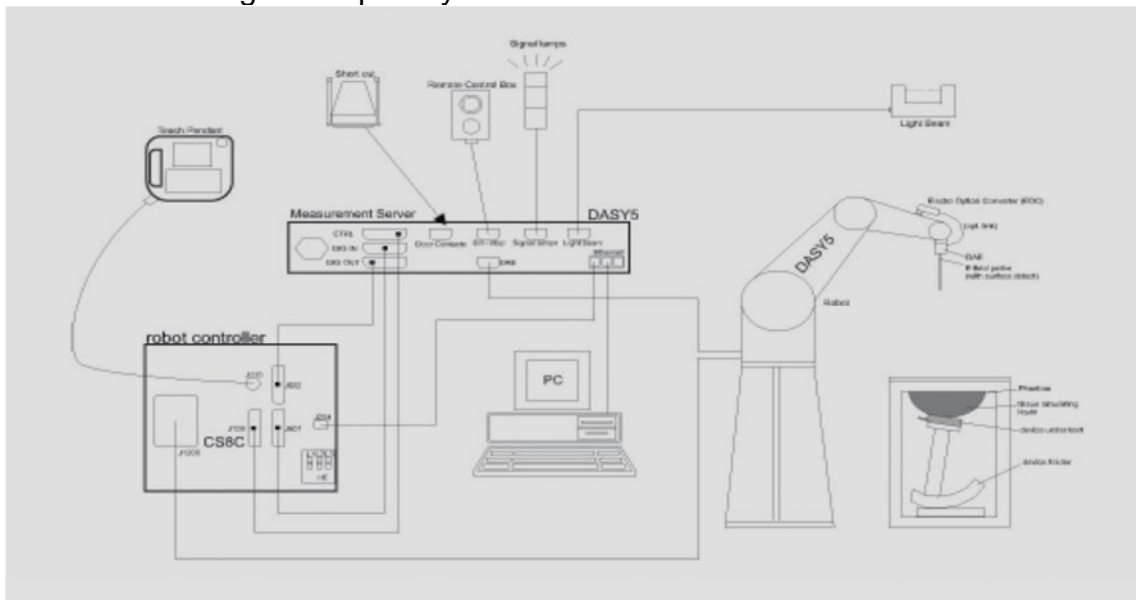



Fig. a The block diagram of SAR system


4. The Electro-optical converter (EOC) performs the conversion between optical and electrical of the signals for the digital communication to the DAE and for the analog signal from the optical surface detection. The EOC is connected to the measurement server.
5. The function of the measurement server is to perform the time critical tasks such as signal filtering, control of the robot operation and fast movement interrupts.
6. A probe alignment unit which improves the (absolute) accuracy of the probe positioning.
7. A computer operating Windows 7.
8. DASY 5 software.
9. Remote control with teach pendant and additional circuitry for robot safety such as warning lamps, etc.
10. The SAM twin phantom enabling testing left-hand and right-hand usage.
11. The device holder for 2-in-1 tablet type devices.
12. Tissue simulating liquid mixed according to the given recipes.
13. Validation dipole kits allowing to validate the proper functioning of the system.

2.6 System Components


EX3DV4 E-Field Probe

Construction	Symmetrical design with triangular core Built-in shielding against static charges PEEK enclosure material (resistant to organic solvents, e.g., DGBE)	
Calibration	Basic Broad Band Calibration in air Conversion Factors (CF) for HSL 750/835/1750/1900/2600 MHz Additional CF for other liquids and frequencies upon request	
Frequency	10 MHz to > 6 GHz	
Directivity	± 0.3 dB in HSL (rotation around probe axis) ± 0.5 dB in tissue material (rotation normal to probe axis)	
Dynamic Range	10 µW/g to > 100 mW/g Linearity: ± 0.2 dB (noise: typically < 1 µW/g)	
Dimensions	Tip diameter: 2.5 mm	
Application	High precision dosimetric measurements in any exposure scenario (e.g., very strong gradient fields). Only probe which enables compliance testing for frequencies up to 6 GHz with precision of better 30%.	

Phantom

Model	ELI	
Construction	The ELI phantom is used 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.	
Shell Thickness	2 ± 0.2 mm	
Filling Volume	Approx. 30 liters	
Dimensions	Major axis: 600 mm Minor axis: 400 mm	

DEVICE HOLDER

Construction	The device holder (Supporter) for Notebook is made by POM (polyoxymethylene resin) , which is non-metal and non-conductive. The height can be adjusted to fit varies kind of notebooks.	
		Device Holder

2.7 SAR System Verification

The microwave circuit arrangement for system verification is sketched in Fig. b. The daily system accuracy verification occurs within the flat section of the SAM phantom. A SAR measurement was performed to see if the measured SAR was within $\pm 10\%$ from the target SAR values. These tests were done at 750/835/1750/1900/2600MHz. The tests were conducted on the same days as the measurement of the DUT. The obtained results from the system accuracy verification are displayed in the table 1 (SAR values are normalized to 1W forward power delivered to the dipole). During the tests, the liquid depth above the ear reference points was $\geq 15 \text{ cm} \pm 5 \text{ mm}$ (frequency $\leq 3 \text{ GHz}$) or $\geq 10 \text{ cm} \pm 5 \text{ mm}$ (frequency $> 3 \text{ GHz}$) in all the cases. It is seen that the system is operating within its specification, as the results are within acceptable tolerance of the reference values.

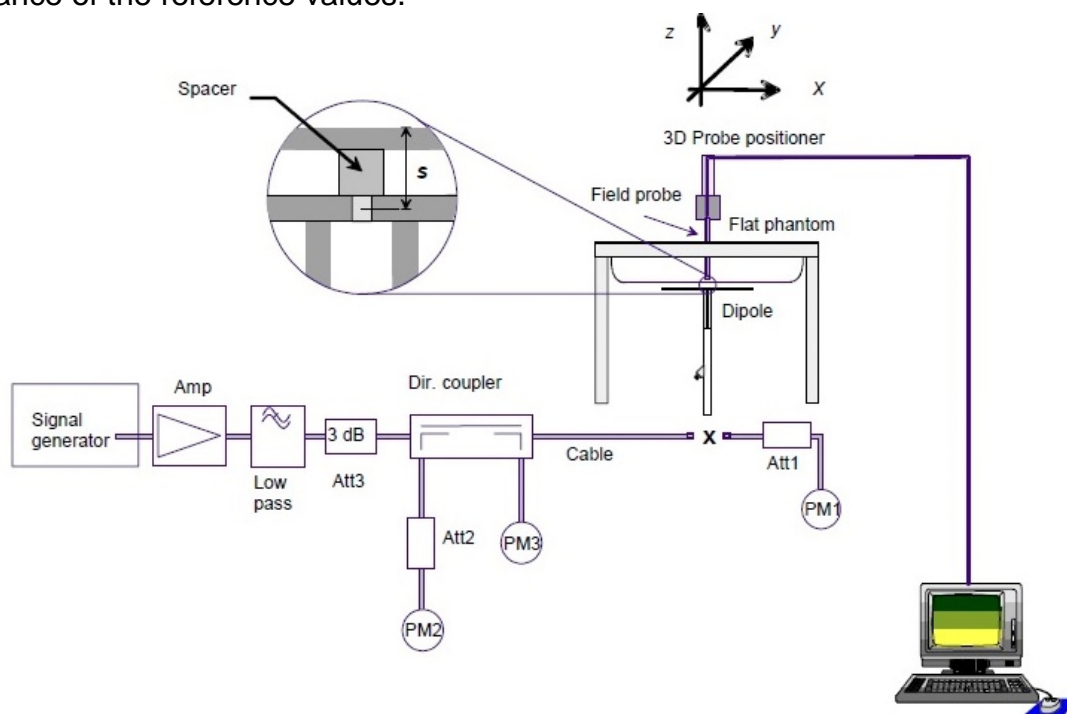


Fig. b The block diagram of system verification

Validation Kit	S/N	Frequency (MHz)		1W Target SAR-1g (mW/g)	Measured SAR-1g (mW/g)	Measured SAR-1g normalized to 1W (mW/g)	Deviation (%)	Measured Date
D750V3	1015	750	Body	8.76	2.19	8.76	0.00%	Mar. 22, 2018
D835V2	4d063	835	Body	9.57	2.34	9.36	-2.19%	Mar. 23, 2018
D1750V2	1008	1750	Body	36.7	9.31	37.24	1.47%	Mar. 26, 2018
D1900V2	5d173	1900	Body	40.2	9.67	38.68	-3.78%	Mar. 27, 2018
D2600V2	1005	2600	Body	54.4	14.2	56.8	4.41%	Mar. 28, 2018

Validation Kit	S/N	Frequency (MHz)		1W Target SAR-1g (mW/g)	Measured SAR-1g (mW/g)	Measured SAR-1g normalized to 1W (mW/g)	Deviation (%)	Measured Date
D750V3	1015	750	Body	8.76	2.06	8.24	-5.94%	Apr. 17, 2018
D835V2	4d063	835	Body	9.57	2.29	9.16	-4.28%	Apr. 17, 2018
D1750V2	1008	1750	Body	36.7	8.85	35.4	-3.54%	Apr. 18, 2018
D1900V2	5d173	1900	Body	40.2	9.67	38.68	-3.78%	Apr. 18, 2018
D2600V2	1005	2600	Body	54.4	13.7	54.8	0.74%	Apr. 18, 2018

Table 1. Results of system validation

Note the system verification for 2.4 GHz and 5 GHz frequency bands were tested and reported in WLAN/BT SAR report of FCC ID: PD98265D2 (see Appendix F for details).

2.8 Tissue Simulant Fluid for the Frequency Band

The dielectric properties for this body-simulant fluid were measured by using the Schmid & Partner Engineering AG Model DAKS Dielectric Probe Kit in conjunction with Network Analyzer.

All dielectric parameters of tissue simulates used in WWAN SAR tests were measured within 24 hours of SAR measurements. The measured conductivity and permittivity are all within $\pm 5\%$ of the target values.

The tissue dielectric parameters used in WLAN/BT SAR tests were measured and reported in WLAN/BT SAR report of FCC ID: PD98265D2 (see Appendix F for details).

Tissue Type	Measurement Date	Measured Frequency (MHz)	Target Dielectric Constant, ϵ_r	Target Conductivity, σ (S/m)	Measured Dielectric Constant, ϵ_r	Measured Conductivity, σ (S/m)	% dev ϵ_r	% dev σ
Body	Mar, 22. 2018	704.00	55.710	0.960	57.955	0.924	-4.03%	3.73%
		707.50	55.697	0.960	57.932	0.924	-4.01%	3.76%
		709.00	55.691	0.960	57.587	0.926	-3.40%	3.56%
		710.00	55.687	0.960	57.586	0.931	-3.41%	3.05%
		711.00	55.683	0.960	57.576	0.929	-3.40%	3.26%
		750.00	55.531	0.963	57.159	0.969	-2.93%	-0.58%
		782.00	55.406	0.966	56.912	1.003	-2.72%	-3.84%
	Mar, 23. 2018	822.50	55.249	0.969	53.067	0.963	3.95%	0.62%
		826.40	55.226	0.959	53.093	0.965	3.86%	-0.58%
		829.00	55.218	0.963	52.989	0.969	4.04%	-0.66%
		831.50	55.214	0.970	52.989	0.971	4.03%	-0.13%
		835.00	55.200	0.970	52.929	0.974	4.11%	-0.41%
		836.50	55.195	0.972	52.976	0.976	4.02%	-0.43%
		836.60	55.194	0.970	52.939	0.975	4.09%	-0.50%
		841.50	55.180	0.978	52.877	0.981	4.17%	-0.31%
	844.00	55.172	0.981	52.862	0.983	4.19%	-0.20%	
	846.60	55.164	0.984	52.789	0.986	4.31%	-0.18%	
	Mar, 26. 2018	1712.40	53.531	1.465	54.897	1.411	-2.55%	3.66%
		1720.00	53.511	1.469	54.873	1.418	-2.55%	3.50%
		1732.40	53.478	1.477	54.855	1.429	-2.58%	3.27%
		1732.50	53.478	1.477	54.851	1.432	-2.57%	3.07%
		1745.00	53.445	1.485	54.842	1.438	-2.61%	3.18%
		1750.00	53.432	1.488	54.799	1.441	-2.56%	3.19%
		1752.60	53.425	1.490	54.785	1.442	-2.55%	3.23%
	1770.00	53.379	1.501	54.705	1.454	-2.48%	3.13%	
	Mar, 27. 2018	1852.40	53.300	1.520	54.478	1.517	-2.21%	0.20%
		1860.00	53.300	1.520	54.419	1.524	-2.10%	-0.26%
		1880.00	53.300	1.520	54.306	1.538	-1.89%	-1.18%
		1900.00	53.300	1.520	54.215	1.552	-1.72%	-2.11%
		1907.60	53.300	1.520	54.211	1.561	-1.71%	-2.70%
	Mar, 28. 2018	2506.00	52.629	2.029	51.617	2.081	1.92%	-2.54%
		2510.00	52.624	2.035	51.592	2.114	1.96%	-3.88%
		2535.00	52.592	2.071	51.481	2.146	2.11%	-3.64%
		2549.50	52.573	2.091	51.441	2.170	2.15%	-3.77%
		2560.00	52.560	2.106	51.397	2.186	2.21%	-3.80%
		2580.00	52.535	2.134	51.319	2.211	2.31%	-3.59%
		2593.00	52.518	2.153	51.317	2.217	2.29%	-2.98%
		2595.00	52.515	2.156	51.298	2.231	2.32%	-3.50%
		2600.00	52.509	2.163	51.262	2.241	2.38%	-3.62%
	2610.00	52.496	2.177	51.225	2.251	2.42%	-3.40%	

Tissue Type	Measurement Date	Measured Frequency (MHz)	Target Dielectric Constant, ϵ_r	Target Conductivity, σ (S/m)	Measured Dielectric Constant, ϵ_r	Measured Conductivity, σ (S/m)	% dev ϵ_r	% dev σ
Body	Apr. 17, 2018	704.00	55.710	0.960	57.721	0.927	-3.61%	3.42%
		707.50	55.697	0.960	57.704	0.931	-3.60%	3.03%
		709.00	55.691	0.960	57.669	0.933	-3.55%	2.83%
		710.00	55.687	0.960	57.644	0.934	-3.51%	2.73%
		711.00	55.683	0.960	57.572	0.935	-3.39%	2.64%
		750.00	55.531	0.963	57.292	0.975	-3.17%	-1.21%
		782.00	55.406	0.966	57.087	1.006	-3.03%	-4.15%
	Apr. 17, 2018	822.50	55.249	0.969	53.086	0.959	3.91%	1.03%
		826.40	55.226	0.959	53.024	0.965	3.99%	-0.58%
		829.00	55.218	0.963	53.011	0.966	4.00%	-0.35%
		831.50	55.214	0.970	52.997	0.972	4.01%	-0.23%
		835.00	55.200	0.970	52.914	0.974	4.14%	-0.41%
		836.50	55.195	0.972	52.905	0.976	4.15%	-0.43%
		836.60	55.194	0.970	52.902	0.978	4.15%	-0.81%
		841.50	55.180	0.978	52.863	0.981	4.20%	-0.31%
	Apr. 18, 2018	844.00	55.172	0.981	52.842	0.984	4.22%	-0.30%
		846.60	55.164	0.984	52.829	0.985	4.23%	-0.07%
		1712.40	53.531	1.465	54.897	1.411	-2.55%	3.66%
		1720.00	53.511	1.469	54.863	1.418	-2.53%	3.50%
		1732.40	53.478	1.477	54.855	1.429	-2.58%	3.27%
		1732.50	53.478	1.477	54.851	1.432	-2.57%	3.07%
		1745.00	53.445	1.485	54.845	1.438	-2.62%	3.18%
		1750.00	53.432	1.488	54.799	1.440	-2.56%	3.25%
	Apr. 18, 2018	1752.60	53.425	1.490	57.785	1.442	-8.16%	3.23%
		1770.00	53.379	1.501	54.705	1.454	-2.48%	3.13%
		1852.40	53.300	1.520	54.458	1.518	-2.17%	0.13%
		1860.00	53.300	1.520	54.419	1.524	-2.10%	-0.26%
		1880.00	53.300	1.520	54.306	1.538	-1.89%	-1.18%
	Apr. 18, 2018	1900.00	53.300	1.520	54.215	1.552	-1.72%	-2.11%
		1907.60	53.300	1.520	54.207	1.559	-1.70%	-2.57%
		2506.00	52.629	2.029	51.462	2.102	2.22%	-3.58%
		2510.00	52.624	2.035	51.455	2.103	2.22%	-3.34%
		2535.00	52.592	2.071	51.292	2.111	2.47%	-1.95%
		2549.50	52.573	2.091	51.072	2.116	2.86%	-1.19%
		2560.00	52.560	2.106	50.922	2.127	3.12%	-1.00%
		2580.00	52.535	2.134	50.848	2.164	3.21%	-1.39%
2593.00		52.518	2.153	50.827	2.196	3.22%	-2.01%	
2595.00	52.515	2.156	50.785	2.199	3.30%	-2.01%		
2600.00	52.509	2.163	50.771	2.214	3.31%	-2.37%		
2610.00	52.496	2.177	50.671	2.234	3.48%	-2.62%		

Table 2. Dielectric Parameters of Tissue Simulant Fluid

The composition of the body tissue simulating liquid:

Frequency (MHz)	Mode	Ingredient						Total amount
		DGMBE	Water	Salt	Preventol D-7	Cellulose	Sugar	
750	Body	—	631.68 g	11.72 g	1.2 g	—	600 g	1.0L(Kg)
850	Body	—	631.68 g	11.72 g	1.2 g	—	600 g	1.0L(Kg)
1750	Body	300.67 g	716.56 g	4.0 g	—	—	—	1.0L(Kg)
1900	Body	300.67 g	716.56 g	4.0 g	—	—	—	1.0L(Kg)
2600	Body	301.7ml	698.3ml	—	—	—	—	1.0L(Kg)

Table 3. Recipes for Tissue Simulating Liquid

2.9 1g- or 10g-SAR calculation

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 1 g and 10 g cubes. The algorithm to find the cube with highest averaged SAR is divided into the following stages:

1. The extraction of the measured data (grid and values) from the Zoom Scan.
2. The calculation of the SAR value at every measurement point based on all stored data (A/D values and measurement parameters)
3. The generation of a high-resolution mesh within the measured volume
4. The interpolation of all measured values from the measurement grid to the high-resolution grid
5. The extrapolation of the entire 3-D field distribution to the phantom surface over the distance from sensor to surface
6. The calculation of the averaged SAR within masses of 1g and 10g.

The probe is calibrated at the center of the dipole sensors that is located 1 to 2.7mm away from the probe tip. During measurements, the probe stops shortly above the phantom surface, depending on the probe and the surface detecting system. Both distances are included as parameters in the probe configuration file. The software always knows exactly how far away the measured point is from the surface. As the probe cannot directly measure at the surface, the values between the deepest measured point and the surface must be extrapolated. The angle between the probe axis and the surface normal line is less than 30 degree.

In the Area Scan, the gradient of the interpolation function is evaluated to find all the extreme of the SAR distribution. The uncertainty on the locations of the extreme is less than 1/20 of the grid size. Only local maximum within -2 dB of the global maximum are searched and passed for the Cube Scan measurement. In the Cube Scan, the interpolation function is used to extrapolate the Peak SAR from the lowest measurement points to the inner phantom surface (the extrapolation distance). 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 5mm.

The maximum search is automatically performed after each area scan measurement. It is based on splines in two or three dimensions. The procedure can find the maximum for most SAR distributions even with relatively large grid spacing. After the area scanning measurement, the probe is automatically moved to a position at the interpolated maximum. The following scan can directly use this position for reference, e.g., for a finer resolution grid or the cube evaluations. The 1g and 10g peak evaluations are only available for the predefined cube 7x7x7 scans. The routines are verified and optimized for the grid dimensions used in these cube measurements.

The measured volume of 30x30x30mm contains about 30g of tissue. The first procedure is an extrapolation (incl. Boundary correction) to get the points between the lowest measured plane and the surface. The next step uses 3D interpolation to get all points within the measured volume. In the last step, a 1g cube is placed numerically into the volume and its averaged SAR is calculated. This cube is moved around until the highest averaged SAR is found. If the highest SAR is found at the edge of the measured volume, the system will issue a warning: higher SAR values might be found outside of the measured volume. In that case the cube measurement can be repeated, using the new interpolated maximum as the center.

2.10 Probe Calibration Procedures

For the calibration of E-field probes in lossy liquids, an electric field with an accurately known field strength must be produced within the measured liquid. For standardization purposes it would be desirable if all measurements which are necessary to assess the correct field strength would be traceable to standardized measurement procedures. In the following two different calibration techniques are summarized:

2.10.1 Transfer Calibration with Temperature Probes

In lossy liquids the specific absorption rate (SAR) is related both to the electric field (E) and the temperature gradient ($\delta T / \delta t$) in the liquid.

$$SAR = \frac{\sigma}{\rho} |E|^2 = c \frac{\delta T}{\delta t}$$

whereby σ is the conductivity, ρ the density and c the heat capacity of the liquid.

Hence, the electric field in lossy liquid can be measured indirectly by measuring the temperature gradient in the liquid. Non-disturbing temperature probes (optical probes or thermistor probes with resistive lines) with high spatial resolution (<1-2 mm) and fast reaction time (<1 s) are available and can be easily calibrated with high precision [1]. The setup and the exciting source have no influence on the calibration; only the relative positioning uncertainties of the standard temperature probe and the E-field probe to be calibrated must be considered. However, several problems limit the available accuracy of probe calibrations with temperature probes:

- The temperature gradient is not directly measurable but must be evaluated from temperature measurements at different time steps. Special precaution is necessary to avoid measurement errors caused by temperature gradients due to energy equalizing effects or convection currents in the liquid. Such effects cannot be completely avoided, as the measured field itself destroys the thermal equilibrium in the liquid. With a careful setup these errors can be kept small.
- The measured volume around the temperature probe is not well defined. It is difficult to calculate the energy transfer from a surrounding gradient temperature field into the probe. These effects must be considered, since temperature probes are calibrated in liquid with homogeneous temperatures. There is no traceable standard for temperature rise measurements.
- The calibration depends on the assessment of the specific density, the heat capacity and the conductivity of the medium. While the specific density and heat capacity can be measured accurately with standardized procedures ($\sim 2\%$ for c ; much better for ρ), there is no standard for the measurement of the conductivity. Depending on the method and liquid, the error can well exceed $\pm 5\%$.
- Temperature rise measurements are not very sensitive and therefore are often performed at a higher power level than the E-field measurements. The nonlinearities in the system (e.g., power measurements, different components, etc.) must be considered.

Considering these problems, the possible accuracy of the calibration of E-field probes with temperature gradient measurements in a carefully designed setup is about $\pm 10\%$ (RSS) [2]. Recently, a setup which is a combination of the waveguide techniques and the thermal measurements was presented in [3]. The estimated uncertainty of the setup is $\pm 5\%$ (RSS) when the same liquid is used for the calibration and for actual measurements and $\pm 7-9\%$ (RSS) when not, which is in good agreement with the estimates given in [2].

2.10.2 Calibration with Analytical Fields

In this method a technical setup is used in which the field can be calculated analytically from measurements of other physical magnitudes (e.g., input power). This corresponds to the standard field method for probe calibration in air; however, there is no standard defined for fields in lossy liquids. When using calculated fields in lossy liquids for probe calibration, several points must be considered in the assessment of the uncertainty:

- The setup must enable accurate determination of the incident power.
- The accuracy of the calculated field strength will depend on the assessment of the dielectric parameters of the liquid.
- Due to the small wavelength in liquids with high permittivity, even small setups might be above the resonant cutoff frequencies. The field distribution in the setup must be carefully checked for conformity with the theoretical field distribution.

References

1. N. Kuster, Q. Balzano, and J.C. Lin, Eds., *Mobile Communications Safety*, Chapman & Hall, London, 1997.
2. K. Meier, M. Burkhardt, T. Schmid, and N. Kuster, "Broadband calibration of E-field probes in lossy media", *IEEE Transactions on Microwave Theory and Techniques*, vol. 44, no. 10, pp. 1954-1962, Oct. 1996.
3. K. Jokela, P. Hyysalo, and L. Puranen, "Calibration of specific absorption rate (SAR) probes in waveguide at 900 MHz", *IEEE Transactions on Instrumentation and Measurements*, vol. 47, no. 2, pp. 432-438, Apr. 1998.

2.11 Test Standards and Limits

According to FCC 47CFR §2.1093(d) The limits to be used for evaluation are based generally on criteria published by the American National Standards Institute (ANSI) for localized specific absorption rate (“SAR”) in Section 4.2 of “IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz,” ANSI/IEEE C95.1, By the Institute of Electrical and Electronics Engineers, Inc., New York, New York 10017. These criteria for SAR evaluation are similar to those recommended by the National Council on Radiation Protection and Measurements (NCRP) in “Biological Effects and Exposure Criteria for Radio frequency Electromagnetic Fields,” NCRP Report No. 86, Section 17.4.5. Copyright NCRP, 1986, Bethesda, Maryland 20814. SAR is a measure of the rate of energy absorption due to exposure to an RF transmitting source. SAR values have been related to threshold levels for potential biological hazards. The criteria to be used are specified in paragraphs (d)(1) and (d)(2) of this section and shall apply for portable devices transmitting in the frequency range from 100 kHz to 6 GHz. Portable devices that transmit at frequencies above 6 GHz are to be evaluated in terms of the MPE limits specified in § 1.1310 of this chapter. Measurements and calculations to demonstrate compliance with MPE field strength or power density limits for devices operating above 6 GHz should be made at a minimum distance of 5 cm from the radiating source.

1. Limits for Occupational/Controlled exposure: 0.4 W/kg as averaged over the whole-body and spatial peak SAR not exceeding 8 W/kg as averaged over any 1 gram of tissue (defined as a tissue volume in the shape of a cube). Exceptions are the hands, wrists, feet and ankles where the spatial peak SAR shall not exceed 20 W/kg, as averaged over an 10 grams of tissue (defined as a tissue volume in the shape of a cube).
2. Occupational/Controlled limits apply when persons are exposed as a consequence of their employment provided these persons are fully aware of and exercise control over their exposure. Awareness of exposure can be accomplished by use of warning labels or by specific training or education through appropriate means, such as an RF safety program in a work environment.
3. Limits for General Population/Uncontrolled exposure: 0.08 W/kg as averaged over the whole-body and spatial peak SAR not exceeding 1.6 W/kg as averaged over any 1 gram of tissue (defined as a tissue volume in the shape of a cube). Exceptions are the hands, wrists, feet and ankles where the spatial peak SAR shall not exceed 4 W/kg, as averaged over any 10 grams of tissue (defined as a tissue volume in the shape of a cube). General Population/Uncontrolled limits apply when the general public may be exposed, or when persons that are exposed as a consequence of their

employment may not be fully aware of the potential for exposure or do not exercise control over their exposure. Warning labels placed on consumer devices such as cellular telephones will not be sufficient reason to allow these devices to be evaluated subject to limits for occupational/controlled exposure in paragraph (d)(1) of this section. (Table 4.)

“Source-based” time-averaging based on an inherent property or duty-cycle of a device is allowed to determine maximum likely exposure level. In general, maximum average power level must be used to determine compliance.

Human Exposure	Uncontrolled Environment General Population	Controlled Environment Occupational
Spatial Peak SAR (Brain)	1.60 W/Kg	8.00 W/Kg
Spatial Average SAR (Whole Body)	0.08 W/Kg	0.40 W/Kg
Spatial Peak SAR (Hands/Feet/Ankle/Wrist)	4.00 W/Kg	20.00 W/Kg

Table 4. RF exposure limits

Notes:

1. Uncontrolled environments are defined as locations where there is potential exposure of individuals who have no knowledge or control of their potential exposure.
2. Controlled environments are defined as locations where there is potential exposure of individuals who have knowledge of their potential exposure and can exercise control over their exposure.

3. Test Condition, Configuration and Assessment

HP tablet model HSN-I06C supports simultaneous transmission of WWAN, BT and WLAN. However, Qualcomm® Smart Transmit algorithm for time-averaging SAR is only applied to WWAN module embedded in HSN-I06C, BT/WLAN modules do not have Smart Transmit feature.

3.1 WWAN (WCDMA / LTE)

The WWAN Module (Foxconn T77W595) integrated in the EUT (HP Tablet HSN-106C) contains Qualcomm MDM9625 modem with Qualcomm M9625AAATWNLBD3036103501.1 software build. This WWAN module is enabled with Qualcomm® Smart Transmit.

The Smart Transmit algorithm embedded in MDM9625 controls and manages the transmit power of the radio to ensure the time averaged 1gSAR does not exceed the FCC SAR limit. For detailed operation of Smart Transmit, see validation report by Qualcomm Technologies, Inc.

The following input parameters are required for Qualcomm® Smart Transmit to operate and they are entered via Embedded File System (EFS). The input parameters need to be verified and confirmed before performing SAR evaluation.

1. *SAR_time_window*

Time, in seconds, over which to average SAR. Note, for the frequency range used by this device, it has been determined through FCC's KDB inquiry that a time-averaging window of 100 seconds is acceptable for this device to support equipment certification

2. *Tx_power_at_SAR_design_target* (P_{limit})

The maximum time-average transmit power, in dBm, at which this radio configuration (i.e., band and technology) reaches the *SAR_design_target*. This *SAR_design_target* is pre-determined for the specific device and it shall be less than regulatory SAR limit after accounting for all design related tolerances. The time-averaged SAR is assessed against this *SAR_design_target* in real time to determine the compliance. The P_{limit} could vary with technology and/or band, therefore it has the unique value for each technology and band.

3. *Reserve_power_margin* (dB)

The margin, in dB, below the P_{limit} to reserve for future transmission with a minimum transmit power ($P_{reserve}$):

$$P_{reserve} \text{ (dBm)} = P_{limit} \text{ (dBm)} - \text{Reserve_power_margin (dB)}$$

The *Reserve_power_margin* is a global parameter, meaning it applies to all the technologies and bands. When the *Reserve_power_margin* is set to zero dB, Smart Transmit effectively limits the upper bound of EUT transmit power to P_{limit} . In that case, $P_{reserve} \text{ (dBm)} = P_{limit} \text{ (dBm)}$ when the EUT is requested to transmit at maximum power, in other words, the EUT transmits continuously at P_{limit} when there is no MPR.

For HP Tablet HSN-I06C, the following input parameters listed in Table 5 are populated via EFS entry:

SAR_time_window	100
Reserve_power_margin	2
Tech/Band	P_{limit} (dBm)
WCDMA Band II	17.5
WCDMA Band IV	17.5
WCDMA Band V	19
LTE Band 2	18
LTE Band 4	17
LTE Band 5	20
LTE Band 7	19
LTE Band 12	21.5
LTE Band 17	21.5

Table 5. Smart Transmit EFS entries

The transmit power tolerances associated with HSN-I06C for WWAN radio consist of Smart Transmit accuracy and the factory RF tune-up tolerance. The factory RF tune-up tolerance includes TxAGC accuracy and device-to-device variation. The total tolerance in transmit power for WWAN technologies supported by HSN-I06C is listed in Table 6.

Technology	Smart Transmit accuracy (dB)	Factory RF tune-up tolerance (dB)	Total tolerance (dB)
WCDMA	±0.40	±0.59	±0.70
LTE	±0.40	±0.63	±0.73

Table 6. Total tolerance in transmit power

Above total tolerance is added to the maximum time-average transmit power level (P_{limit})

to obtain the lower bound of P_{limit} ($minP_{limit}$) and upper bound of P_{limit} ($reported P_{limit}$) defined as

$$minP_{limit} \text{ (dBm)} = P_{limit} \text{ (dBm)} - \text{total tolerance (dB)}$$

$$reported P_{limit} \text{ (dBm)} = P_{limit} \text{ (dBm)} + \text{total tolerance (dB)}$$

Both $minP_{limit}$ and $reported P_{limit}$ are listed in Table 7 for each supported technology and band after accounting for the total tolerance:

Technology/band	$minP_{limit}$ (dBm)	P_{limit} (dBm) (specified in EFS)	$reported P_{limit}$ (dBm)
WCDMA Band II	16.80	17.5	18.20
WCDMA Band IV	16.80	17.5	18.20
WCDMA Band V	18.30	19	19.70
LTE Band 2	17.27	18	18.73
LTE Band 4	16.27	17	17.73
LTE Band 5	19.27	20	20.73
LTE Band 7	18.27	19	19.73
LTE Band 12	20.77	21.5	22.23
LTE Band 17	20.77	21.5	22.23

Table 7. Lower bound P_{limit} ($minP_{limit}$) and upper bound P_{limit} ($reported P_{limit}$) for each supported technology and band

The SAR measurements on all supported WWAN technologies and bands are conducted with EUT transmitting at maximum time-average transmit power (P_{limit}). The test condition is to set *Reserve_power_margin* to 0dB and callbox requesting maximum power from EUT. Additionally, conducted power measurements are performed under the same test condition to measure the maximum time-average transmit power, denoted as *meas. P_{limit}*, of EUT.

All measured 1gSAR values are scaled to their corresponding $reported P_{limit}$ levels to determine *reported 1gSAR*:

$$reported \ 1gSAR = \frac{reported \ P_{limit}}{meas. \ P_{limit}} \times measured \ 1gSAR$$

All the *reported 1gSAR* needs to comply with 1.6 W/kg SAR limit.

3.2 WLAN/Bluetooth

For WLAN/BT, since the RF hardware/software of HSN-I06C in Report No.:EN201740008 is the same with that of FCC ID: PD98265D2, the WLAN/BT SAR values refer to the WLAN/BT SAR report of FCC ID: PD98265D2, see Appendix F for details.

3.3 Device Test Configuration

HSN-I06C is a 2-in-1 device. However, all the SAR tests for WWAN transmission are performed at 0mm clearance. Therefore, any SAR test exclusions associated with convertible product in notebook mode is not utilized.

There is the keyboard may be combined with the tablet and WWAN/WLAN antennas to user will be larger than 20cm when operating in laptop mode. Hence, SAR test for laptop mode can be excluded and SAR shall be measured with the tablet touching the flat phantom based on KDB616217 D04 v01r02 4.3.

The antenna placement is shown in Figure 3-1. WWAN module does not have transmit diversity. Only "WWAN Main" is capable of transmission. However, the WLAN module has transmit diversity.

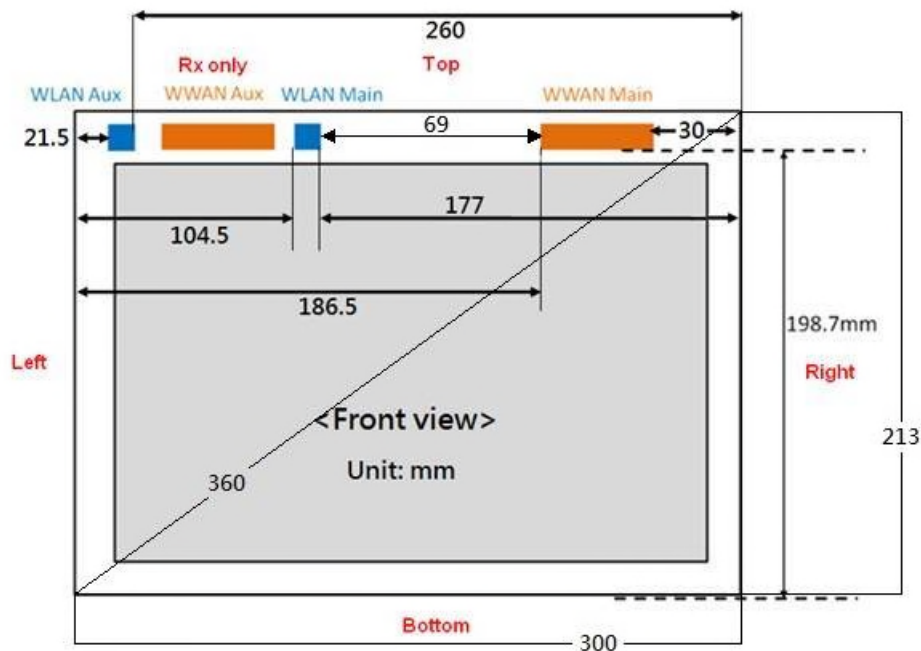


Figure 3-1: Antenna placement (Front View)

In this report, SAR assessment for WWAN module was performed for the following configurations:

- Configuration 1: Backside with 0 mm separation distance
- Configuration 2: Top with 0 mm separation distance
- Configuration 3: Right with 0 mm separation distance

3.4 Simultaneous Transmission

The WWAN module does not support transmission diversity. However, HSN-I06C does support simultaneous transmission of WWAN and WLAN. SAR calculations from WWAN MAIN antenna to both WLAN antennas are performed, and all SPLSR (SAR to peak location separation ratio, KDB447498) for all combinations of transmitting antennas are calculated in Section 6 to determine if the SAR evaluation for simultaneous transmission is required.

4. SAR Exclusion Criteria

Since the WWAN module embedded in HSN-I06C is enabled with Qualcomm Smart Transmit to control and manage transmit power in real time for ensuring time averaged 1gSAR in compliance with FCC SAR requirement, all the relevant FCC exclusion criteria is applied on a time average power basis. The *reported P_{limit}* is used in the SAR measurement protocol for WWAN.

1. Measurements are performed respectively on the lowest, middle and highest channels of the operating band(s). The EUT is set to maximum time average power level (i.e., P_{limit}) during all tests, and at the beginning of each test the battery is fully charged.
2. The 3G SAR test reduction procedure is applied to HSDPA with 12.2 kbps RMC as the primary mode. Since the *reported P_{limit}* in a secondary mode (HSDPA) is $\leq \frac{1}{4}$ dB higher than the primary mode (WCDMA), SAR measurement is not required for the secondary mode (HSDPA).
3. The 3G SAR test reduction procedure is applied to HSPA (HSUPA/HSDPA with RMC) with 12.2 kbps RMC as the primary mode. Since the *reported P_{limit}* in a secondary mode (HSPA) is $\leq \frac{1}{4}$ dB higher than the primary mode (WCDMA), SAR measurement is not required for the secondary mode (HSPA).
4. LTE modes test according to **KDB 941225D05v02r05**.
 - a. Per Section 5.2.1, the largest channel bandwidth and measure SAR for QPSK with 1 RB allocation.
 - i. Using the RB offset and required test channel combination with the highest *reported P_{limit}* for RB offsets at the upper edge, middle and lower edge of each required test channel.
 - ii. When the reported SAR is ≤ 0.8 W/kg, testing of the remaining RB offset configurations and required test channels is not required for 1 RB allocation; otherwise, SAR is required for the remaining required test channels and only for the RB offset configuration with the highest *reported P_{limit}* for that channel.
 - iii. 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.

- b. Per Section 5.2.2, the largest channel bandwidth and measure SAR for QPSK with 50% RB allocation
 - i. The procedures required for 1 RB allocation in 5.2.1 are applied to measure the SAR for QPSK with 50% RB allocation.
 - c. Per Section 5.2.3, the largest channel bandwidth and measure SAR for QPSK with 100% RB allocation
 - i. For QPSK with 100% RB allocation, SAR is not required when the highest *reported* P_{limit} for 100 % RB allocation is less than the highest maximum output power in 50% and 1 RB allocations and the highest reported SAR for 1 RB and 50% RB allocation in 5.2.1 and 5.2.2 are ≤ 0.8 W/kg.
 - ii. Otherwise, SAR is measured for the highest *reported* P_{limit} channel and if the reported SAR is > 1.45 W/kg, the remaining required test channels must also be tested.
 - d. Per Section 5.2.4, Higher order modulations:
 - i. For each modulation besides QPSK; e.g., 16-QAM, 64-QAM, apply the QPSK procedures in sections 5.2.1, 5.2.2 and 5.2.3 to determine the QAM configurations that may need SAR measurement. For each configuration identified as required for testing, SAR is required only when the highest *reported* P_{limit} for the configuration in the higher order modulation is $> \frac{1}{2}$ dB higher than the same configuration in QPSK or when the reported SAR for the QPSK configuration is > 1.45 W/kg.
 - e. Per Section 5.3, other channel bandwidth standalone SAR test requirements:
 - i. For the other channel bandwidths used by the device in a frequency band, apply all the procedures required for the largest channel bandwidth in section 5.2 to determine the channels and RB configurations that need SAR testing and only measure SAR when the highest *reported* P_{limit} of a configuration requiring testing in the smaller channel bandwidth is $> \frac{1}{2}$ dB higher than the equivalent channel configurations in the largest channel bandwidth configuration or the reported SAR of a configuration for the largest channel bandwidth is > 1.45 W/kg. The equivalent channel configuration for the RB allocation, RB offset and modulation etc. is determined for the smaller channel bandwidth according to the same number of RB allocated in the largest channel bandwidth.
5. According to **KDB447498D01v06**, testing of other required channels is not required when the reported 1-g SAR for the highest *reported* P_{limit} channel is ≤ 0.8 W/kg, when the transmission band is ≤ 100 MHz.
6. According to **KDB865664D01v01r04**, SAR measurement variability must be assessed for each frequency band. When the original highest measured SAR is ≥ 0.8 W/kg, repeated that measurement once. Perform a second repeated measurement only if the ratio of largest to smallest SAR for the original and first repeated measurements is > 1.20 or when the original or repeated measurement is ≥ 1.45 W/kg ($\sim 10\%$ from the 1-g SAR limit)

5. Summary of Results

5.1 EFS entry verification

The input parameters read from EUT (HP Tablet HSN-106C) are shown in Figure 5-1, which matches Table 5 in Section 3.1.

The screenshot displays a configuration interface with three main sections: LTE Config, WCDMA Config, and GPRS Config. At the top, there are two input fields: 'RTSAR_Time' set to 100 (with a note '<=360s') and 'Margin' set to 2.

LTE Config	
Band	Average Power Limit
LTE B1	<input type="text"/>
LTE B2	18
LTE B3	<input type="text"/>
LTE B4	17
LTE B5	20
LTE B7	19
LTE B8	<input type="text"/>
LTE B12	21.5
LTE B13	<input type="text"/>
LTE B17	21.5
LTE B20	<input type="text"/>
LTE B28	<input type="text"/>

WCDMA Config	
Band	Average Power Limit
WCDMA B1	<input type="text"/>
WCDMA B2	17.5
WCDMA B4	17.5
WCDMA B5	19
WCDMA B8	<input type="text"/>

GPRS Config	
Band	Average Power Limit
GPRS 850	<input type="text"/>
GPRS 900	<input type="text"/>
GPRS 1800	<input type="text"/>
GPRS 1900	<input type="text"/>

Figure 5-1

All the required parameters were properly populated in the EUT, the input parameters for Qualcomm Smart Transmit have been verified and confirmed.

5.2 Conducted Power Measurements at P_{limit}

In Section 5.2, all the conducted power measurement is performed with *reserve_power_margin* set to 0dB.

5.2.1 WCDMA Band II: All Rel 99 measured P_{limit} are within 16.80 dBm and 18.20 dBm.

Rel	Tech	CH	Freq. [MHz]	Meas. Power (dBm)	reported P_{limit} (dBm)
3GPP Rel 99	RMC 12.2kbps	9262	1852.4	17.43	18.20
		9400	1880	17.59	18.20
		9538	1907.6	17.68	18.20
3GPP Rel 5	HSDPA Subtest-1	9262	1852.4	16.41	18.20
		9400	1880	16.64	18.20
		9538	1907.6	16.61	18.20
	HSDPA Subtest-2	9262	1852.4	16.37	18.20
		9400	1880	16.63	18.20
		9538	1907.6	16.60	18.20
	HSDPA Subtest-3	9262	1852.4	15.89	18.20
		9400	1880	16.15	18.20
		9538	1907.6	16.20	18.20
	HSDPA Subtest-4	9262	1852.4	15.87	18.20
		9400	1880	16.15	18.20
		9538	1907.6	16.19	18.20
3GPP Rel 6	HSDPA Subtest-1	9262	1852.4	16.38	18.20
		9400	1880	16.57	18.20
		9538	1907.6	16.61	18.20
	HSDPA Subtest-2	9262	1852.4	15.92	18.20
		9400	1880	16.09	18.20
		9538	1907.6	16.13	18.20
	HSDPA Subtest-3	9262	1852.4	16.31	18.20
		9400	1880	16.56	18.20
		9538	1907.6	16.60	18.20
	HSDPA Subtest-4	9262	1852.4	16.37	18.20
		9400	1880	16.58	18.20
		9538	1907.6	16.60	18.20
	HSDPA Subtest-5	9262	1852.4	16.39	18.20
		9400	1880	16.67	18.20
		9538	1907.6	16.62	18.20

5.2.2 WCDMA Band IV: All Rel 99 measured P_{limit} are within 16.80 dBm and 18.20 dBm.

Rel	Tech	CH	Freq. [MHz]	Meas. Power (dBm)	reported P_{limit} (dBm)
3GPP Rel 99	RMC 12.2kbps	1312	1712.4	17.54	18.20
		1412	1732.4	17.66	18.20
		1513	1752.6	17.65	18.20
3GPP Rel 5	HSDPA Subtest-1	1312	1712.4	16.44	18.20
		1412	1732.4	16.62	18.20
		1513	1752.6	16.62	18.20
	HSDPA Subtest-2	1312	1712.4	16.42	18.20
		1412	1732.4	16.58	18.20
		1513	1752.6	16.58	18.20
	HSDPA Subtest-3	1312	1712.4	15.95	18.20
		1412	1732.4	16.14	18.20
		1513	1752.6	16.14	18.20
	HSDPA Subtest-4	1312	1712.4	15.93	18.20
		1412	1732.4	16.13	18.20
		1513	1752.6	16.15	18.20
3GPP Rel 6	HSDPA Subtest-1	1312	1712.4	16.46	18.20
		1412	1732.4	16.62	18.20
		1513	1752.6	16.61	18.20
	HSDPA Subtest-2	1312	1712.4	15.90	18.20
		1412	1732.4	16.12	18.20
		1513	1752.6	16.03	18.20
	HSDPA Subtest-3	1312	1712.4	16.47	18.20
		1412	1732.4	16.64	18.20
		1513	1752.6	16.64	18.20
	HSDPA Subtest-4	1312	1712.4	16.42	18.20
		1412	1732.4	16.61	18.20
		1513	1752.6	16.55	18.20
	HSDPA Subtest-5	1312	1712.4	16.48	18.20
		1412	1732.4	16.65	18.20
		1513	1752.6	16.66	18.20

5.2.3 WCDMA Band V: All Rel 99 measured P_{limit} are within 18.30 dBm and 19.70 dBm.

Rel	Tech	CH	Freq. [MHz]	Meas. Power (dBm)	reported P_{limit} (dBm)
3GPP Rel 99	RMC 12.2kbps	4132	826.4	18.43	19.70
		4183	836.6	18.41	19.70
		4233	846.6	18.45	19.70
3GPP Rel 5	HSDPA Subtest-1	4132	826.4	17.76	19.70
		4183	836.6	17.87	19.70
		4233	846.6	17.90	19.70
	HSDPA Subtest-2	4132	826.4	17.75	19.70
		4183	836.6	17.81	19.70
		4233	846.6	17.88	19.70
	HSDPA Subtest-3	4132	826.4	17.25	19.70
		4183	836.6	17.42	19.70
		4233	846.6	17.39	19.70
	HSDPA Subtest-4	4132	826.4	17.24	19.70
		4183	836.6	17.41	19.70
		4233	846.6	17.37	19.70
3GPP Rel 6	HSDPA Subtest-1	4132	826.4	17.76	19.70
		4183	836.6	17.82	19.70
		4233	846.6	17.88	19.70
	HSDPA Subtest-2	4132	826.4	17.29	19.70
		4183	836.6	17.35	19.70
		4233	846.6	17.42	19.70
	HSDPA Subtest-3	4132	826.4	17.71	19.70
		4183	836.6	17.83	19.70
		4233	846.6	17.90	19.70
	HSDPA Subtest-4	4132	826.4	17.78	19.70
		4183	836.6	17.84	19.70
		4233	846.6	17.89	19.70
	HSDPA Subtest-5	4132	826.4	17.72	19.70
		4183	836.6	17.79	19.70
		4233	846.6	17.88	19.70

5.2.4 LTE FDD Band 2: all measured P_{limit} are within 17.27dBm and 18.73dBm

FDD Band 2							
BW(MHz)	Modulation	RB Size	RB Offset	Frequency (MHz)	Channel	P_{limit} (dBm)	reported P_{limit} (dBm)
20	QPSK	1 RB	0	1860	18700	18.45	18.73
				1880	18900	18.20	18.73
				1900	19100	18.42	18.73
			50	1860	18700	18.12	18.73
				1880	18900	18.56	18.73
				1900	19100	18.60	18.73
			99	1860	18700	18.39	18.73
				1880	18900	18.57	18.73
				1900	19100	18.32	18.73
		50 RB	0	1860	18700	18.21	18.73
				1880	18900	18.51	18.73
				1900	19100	18.54	18.73
			25	1860	18700	18.19	18.73
				1880	18900	18.49	18.73
				1900	19100	18.56	18.73
			50	1860	18700	18.24	18.73
				1880	18900	18.43	18.73
				1900	19100	18.51	18.73
	100RB	1860	18700	18.23	18.73		
		1880	18900	18.58	18.73		
		1900	19100	18.55	18.73		
	16-QAM	1 RB	0	1860	18700	18.58	18.73
				1880	18900	18.08	18.73
				1900	19100	18.54	18.73
			50	1860	18700	18.12	18.73
				1880	18900	18.06	18.73
				1900	19100	18.46	18.73
			99	1860	18700	18.08	18.73
				1880	18900	18.36	18.73
				1900	19100	18.61	18.73
		50 RB	0	1860	18700	18.23	18.73
				1880	18900	18.38	18.73
				1900	19100	18.45	18.73
			25	1860	18700	18.24	18.73
				1880	18900	18.58	18.73
				1900	19100	18.50	18.73
50			1860	18700	18.19	18.73	
			1880	18900	18.41	18.73	
			1900	19100	18.52	18.73	
100RB	1860	18700	18.16	18.73			
	1880	18900	18.45	18.73			
	1900	19100	18.57	18.73			

FDD Band 2								
BW(MHz)	Modulation	RB Size	RB Offset	Frequency (MHz)	Channel	<i>Plimit</i> (dBm)	<i>reported Plimit</i> (dBm)	
15	QPSK	1 RB	0	1857.5	18675	18.55	18.73	
				1880	18900	18.44	18.73	
				1902.5	19125	18.50	18.73	
			36	1857.5	18675	18.02	18.73	
				1880	18900	18.55	18.73	
				1902.5	19125	18.43	18.73	
			74	1857.5	18675	18.12	18.73	
				1880	18900	18.52	18.73	
				1902.5	19125	18.39	18.73	
		36 RB	0	1857.5	18675	18.18	18.73	
				1880	18900	18.39	18.73	
				1902.5	19125	18.46	18.73	
			18	1857.5	18675	18.10	18.73	
				1880	18900	18.44	18.73	
				1902.5	19125	18.44	18.73	
			37	1857.5	18675	18.13	18.73	
				1880	18900	18.50	18.73	
				1902.5	19125	18.49	18.73	
		75RB	1857.5	18675	18.11	18.73		
			1880	18900	18.48	18.73		
			1902.5	19125	18.57	18.73		
		16-QAM	1 RB	0	1857.5	18675	18.47	18.73
					1880	18900	18.14	18.73
					1902.5	19125	18.53	18.73
	36			1857.5	18675	18.17	18.73	
				1880	18900	18.23	18.73	
				1902.5	19125	18.52	18.73	
	74			1857.5	18675	18.26	18.73	
				1880	18900	18.37	18.73	
				1902.5	19125	18.24	18.73	
	36 RB			0	1857.5	18675	18.24	18.73
					1880	18900	18.39	18.73
					1902.5	19125	18.50	18.73
			18	1857.5	18675	18.22	18.73	
				1880	18900	18.48	18.73	
				1902.5	19125	18.49	18.73	
			37	1857.5	18675	18.19	18.73	
				1880	18900	18.51	18.73	
				1902.5	19125	18.47	18.73	
	75RB		1857.5	18675	18.20	18.73		
			1880	18900	18.48	18.73		
			1902.5	19125	18.52	18.73		

FDD Band 2									
BW(MHz)	Modulation	RB Size	RB Offset	Frequency (MHz)	Channel	<i>Plimit</i> (dBm)	<i>reported Plimit</i> (dBm)		
10	QPSK	1 RB	0	1855	18650	18.29	18.73		
				1880	18900	18.36	18.73		
				1905	19150	18.49	18.73		
			25	1855	18650	18.08	18.73		
				1880	18900	18.39	18.73		
				1905	19150	18.56	18.73		
				49	1855	18650	18.19	18.73	
					1880	18900	18.47	18.73	
					1905	19150	18.37	18.73	
		25 RB	0	1855	18650	18.29	18.73		
				1880	18900	18.52	18.73		
				1905	19150	18.54	18.73		
			12	1855	18650	18.09	18.73		
				1880	18900	18.48	18.73		
				1905	19150	18.53	18.73		
				25	1855	18650	18.10	18.73	
					1880	18900	18.52	18.73	
					1905	19150	18.41	18.73	
		50RB			1855	18650	18.28	18.73	
					1880	18900	18.45	18.73	
					1905	19150	18.49	18.73	
		16-QAM	1 RB	0	1855	18650	18.12	18.73	
					1880	18900	18.44	18.73	
					1905	19150	18.43	18.73	
	25				1855	18650	18.17	18.73	
					1880	18900	18.39	18.73	
					1905	19150	18.46	18.73	
	49			1855	18650	18.03	18.73		
				1880	18900	18.38	18.73		
				1905	19150	18.40	18.73		
				25 RB	0	1855	18650	18.33	18.73
						1880	18900	18.34	18.73
						1905	19150	18.46	18.73
	12				1855	18650	18.18	18.73	
					1880	18900	18.40	18.73	
					1905	19150	18.41	18.73	
	25			1855	18650	18.15	18.73		
				1880	18900	18.41	18.73		
				1905	19150	18.47	18.73		
			50RB			1855	18650	18.16	18.73
						1880	18900	18.46	18.73
						1905	19150	18.45	18.73

FDD Band 2								
BW(MHz)	Modulation	RB Size	RB Offset	Frequency (MHz)	Channel	Plimit (dBm)	reported Plimit (dBm)	
5	QPSK	1 RB	0	1852.5	18625	18.33	18.73	
				1880	18900	18.38	18.73	
				1907.5	19175	18.48	18.73	
			12	1852.5	18625	18.25	18.73	
				1880	18900	18.45	18.73	
				1907.5	19175	18.40	18.73	
			24	1852.5	18625	18.07	18.73	
				1880	18900	18.49	18.73	
				1907.5	19175	18.48	18.73	
		12 RB	0	1852.5	18625	18.34	18.73	
				1880	18900	18.43	18.73	
				1907.5	19175	18.36	18.73	
			6	1852.5	18625	18.24	18.73	
				1880	18900	18.43	18.73	
				1907.5	19175	18.35	18.73	
			13	1852.5	18625	18.24	18.73	
				1880	18900	18.47	18.73	
				1907.5	19175	18.38	18.73	
		25RB	1852.5	18625	18.31	18.73		
			1880	18900	18.48	18.73		
			1907.5	19175	18.39	18.73		
		16-QAM	1 RB	0	1852.5	18625	18.45	18.73
					1880	18900	18.44	18.73
					1907.5	19175	18.26	18.73
	12			1852.5	18625	18.09	18.73	
				1880	18900	18.26	18.73	
				1907.5	19175	18.04	18.73	
	24			1852.5	18625	18.20	18.73	
				1880	18900	18.25	18.73	
				1907.5	19175	18.38	18.73	
	12 RB			0	1852.5	18625	18.44	18.73
					1880	18900	18.44	18.73
					1907.5	19175	18.46	18.73
			6	1852.5	18625	18.44	18.73	
				1880	18900	18.44	18.73	
				1907.5	19175	18.44	18.73	
			13	1852.5	18625	18.36	18.73	
				1880	18900	18.43	18.73	
				1907.5	19175	18.43	18.73	
	25RB		1852.5	18625	18.39	18.73		
			1880	18900	18.43	18.73		
			1907.5	19175	18.37	18.73		

FDD Band 2								
BW(MHz)	Modulation	RB Size	RB Offset	Frequency (MHz)	Channel	Plimit (dBm)	reported Plimit (dBm)	
3	QPSK	1 RB	0	1851.5	18615	18.33	18.73	
				1880	18900	18.40	18.73	
				1908.5	19185	18.35	18.73	
			7	1851.5	18615	18.38	18.73	
				1880	18900	18.45	18.73	
				1908.5	19185	18.40	18.73	
			14	1851.5	18615	18.26	18.73	
				1880	18900	18.45	18.73	
				1908.5	19185	18.40	18.73	
		8 RB	0	1851.5	18615	18.36	18.73	
				1880	18900	18.40	18.73	
				1908.5	19185	18.37	18.73	
			4	1851.5	18615	18.34	18.73	
				1880	18900	18.42	18.73	
				1908.5	19185	18.36	18.73	
			7	1851.5	18615	18.38	18.73	
				1880	18900	18.48	18.73	
				1908.5	19185	18.40	18.73	
		15RB	1851.5	18615	18.42	18.73		
			1880	18900	18.44	18.73		
			1908.5	19185	18.45	18.73		
		16-QAM	1 RB	0	1851.5	18615	18.42	18.73
					1880	18900	18.36	18.73
					1908.5	19185	18.46	18.73
	7			1851.5	18615	18.12	18.73	
				1880	18900	18.22	18.73	
				1908.5	19185	18.56	18.73	
	14			1851.5	18615	18.09	18.73	
				1880	18900	18.16	18.73	
				1908.5	19185	18.40	18.73	
	8 RB			0	1851.5	18615	18.44	18.73
					1880	18900	18.46	18.73
					1908.5	19185	18.39	18.73
			4	1851.5	18615	18.33	18.73	
				1880	18900	18.51	18.73	
				1908.5	19185	18.43	18.73	
			7	1851.5	18615	18.34	18.73	
				1880	18900	18.44	18.73	
				1908.5	19185	18.45	18.73	
	15RB		1851.5	18615	18.43	18.73		
			1880	18900	18.37	18.73		
			1908.5	19185	18.34	18.73		

FDD Band 2								
BW(MHz)	Modulation	RB Size	RB Offset	Frequency (MHz)	Channel	<i>Plimit</i> (dBm)	<i>reported Plimit</i> (dBm)	
1.4	QPSK	1 RB	0	1850.7	18607	18.44	18.73	
				1880	18900	18.39	18.73	
				1909.3	19193	18.49	18.73	
			2	1850.7	18607	18.38	18.73	
				1880	18900	18.49	18.73	
				1909.3	19193	18.44	18.73	
			5	1850.7	18607	18.41	18.73	
				1880	18900	18.48	18.73	
				1909.3	19193	18.42	18.73	
		3 RB	0	1850.7	18607	18.37	18.73	
				1880	18900	18.44	18.73	
				1909.3	19193	18.48	18.73	
			2	1850.7	18607	18.35	18.73	
				1880	18900	18.48	18.73	
				1909.3	19193	18.43	18.73	
			3	1850.7	18607	18.36	18.73	
				1880	18900	18.47	18.73	
				1909.3	19193	18.45	18.73	
		6RB	1850.7	18607	18.41	18.73		
			1880	18900	18.45	18.73		
			1909.3	19193	18.47	18.73		
		16-QAM	1 RB	0	1850.7	18607	18.41	18.73
					1880	18900	18.43	18.73
					1909.3	19193	18.23	18.73
	2			1850.7	18607	18.40	18.73	
				1880	18900	18.34	18.73	
				1909.3	19193	18.45	18.73	
	5			1850.7	18607	18.33	18.73	
				1880	18900	18.29	18.73	
				1909.3	19193	18.22	18.73	
	3 RB			0	1850.7	18607	18.37	18.73
					1880	18900	18.32	18.73
					1909.3	19193	18.37	18.73
			2	1850.7	18607	18.37	18.73	
				1880	18900	18.38	18.73	
				1909.3	19193	18.29	18.73	
			3	1850.7	18607	18.20	18.73	
				1880	18900	18.26	18.73	
				1909.3	19193	18.37	18.73	
	6RB		1850.7	18607	18.37	18.73		
			1880	18900	18.46	18.73		
			1909.3	19193	18.38	18.73		

5.2.5 LTE FDD Band 4: All measured P_{limit} are within 16.27dBm and 17.73dBm

FDD Band 4								
BW(MHz)	Modulation	RB Size	RB Offset	Frequency (MHz)	Channel	P_{limit} (dBm)	reported P_{limit} (dBm)	
20	QPSK	1 RB	0	1720	20050	16.72	17.73	
				1732.5	20175	16.77	17.73	
				1745	20300	16.74	17.73	
			50	1720	20050	16.49	17.73	
				1732.5	20175	16.75	17.73	
				1745	20300	16.67	17.73	
			99	1720	20050	16.66	17.73	
				1732.5	20175	16.72	17.73	
				1745	20300	16.71	17.73	
		50 RB	0	1720	20050	16.69	17.73	
				1732.5	20175	16.68	17.73	
				1745	20300	16.75	17.73	
			25	1720	20050	16.63	17.73	
				1732.5	20175	16.74	17.73	
				1745	20300	16.73	17.73	
			50	1720	20050	16.67	17.73	
				1732.5	20175	16.65	17.73	
				1745	20300	16.70	17.73	
		100RB	1720	20050	16.66	17.73		
			1732.5	20175	16.79	17.73		
			1745	20300	16.72	17.73		
		16-QAM	1 RB	0	1720	20050	16.46	17.73
					1732.5	20175	16.39	17.73
					1745	20300	16.65	17.73
	50			1720	20050	16.55	17.73	
				1732.5	20175	16.63	17.73	
				1745	20300	16.48	17.73	
	99			1720	20050	16.80	17.73	
				1732.5	20175	16.40	17.73	
				1745	20300	16.71	17.73	
	50 RB			0	1720	20050	16.76	17.73
					1732.5	20175	16.72	17.73
					1745	20300	16.61	17.73
			25	1720	20050	16.60	17.73	
				1732.5	20175	16.65	17.73	
				1745	20300	16.72	17.73	
			50	1720	20050	16.63	17.73	
				1732.5	20175	16.71	17.73	
				1745	20300	16.68	17.73	
	100RB		1720	20050	16.63	17.73		
			1732.5	20175	16.69	17.73		
			1745	20300	16.66	17.73		

FDD Band 4								
BW(MHz)	Modulation	RB Size	RB Offset	Frequency (MHz)	Channel	Plimit (dBm)	reported Plimit (dBm)	
15	QPSK	1 RB	0	1717.5	20025	16.68	17.73	
				1732.5	20175	16.62	17.73	
				1747.5	20325	16.66	17.73	
			36	1717.5	20025	16.65	17.73	
				1732.5	20175	16.62	17.73	
				1747.5	20325	16.72	17.73	
			74	1717.5	20025	16.59	17.73	
				1732.5	20175	16.71	17.73	
				1747.5	20325	16.65	17.73	
		36 RB	0	1717.5	20025	16.68	17.73	
				1732.5	20175	16.63	17.73	
				1747.5	20325	16.69	17.73	
			18	1717.5	20025	16.50	17.73	
				1732.5	20175	16.69	17.73	
				1747.5	20325	16.73	17.73	
			37	1717.5	20025	16.55	17.73	
				1732.5	20175	16.66	17.73	
				1747.5	20325	16.64	17.73	
		75RB	1717.5	20025	16.64	17.73		
			1732.5	20175	16.65	17.73		
			1747.5	20325	16.72	17.73		
		16-QAM	1 RB	0	1717.5	20025	16.67	17.73
					1732.5	20175	16.39	17.73
					1747.5	20325	16.68	17.73
	36			1717.5	20025	16.41	17.73	
				1732.5	20175	16.57	17.73	
				1747.5	20325	16.65	17.73	
	74			1717.5	20025	16.41	17.73	
				1732.5	20175	16.39	17.73	
				1747.5	20325	16.48	17.73	
	36 RB			0	1717.5	20025	16.66	17.73
					1732.5	20175	16.65	17.73
					1747.5	20325	16.67	17.73
			18	1717.5	20025	16.62	17.73	
				1732.5	20175	16.58	17.73	
				1747.5	20325	16.63	17.73	
			37	1717.5	20025	16.61	17.73	
				1732.5	20175	16.57	17.73	
				1747.5	20325	16.62	17.73	
	75RB		1717.5	20025	16.67	17.73		
			1732.5	20175	16.66	17.73		
			1747.5	20325	16.63	17.73		

FDD Band 4								
BW(MHz)	Modulation	RB Size	RB Offset	Frequency (MHz)	Channel	<i>Plimit</i> (dBm)	<i>reported Plimit</i> (dBm)	
10	QPSK	1 RB	0	1715	20000	16.70	17.73	
				1732.5	20175	16.65	17.73	
				1750	20350	16.68	17.73	
			25	1715	20000	16.37	17.73	
				1732.5	20175	16.59	17.73	
				1750	20350	16.63	17.73	
			49	1715	20000	16.45	17.73	
				1732.5	20175	16.60	17.73	
				1750	20350	16.66	17.73	
		25 RB	0	1715	20000	16.67	17.73	
				1732.5	20175	16.65	17.73	
				1750	20350	16.66	17.73	
			12	1715	20000	16.69	17.73	
				1732.5	20175	16.61	17.73	
				1750	20350	16.69	17.73	
			25	1715	20000	16.59	17.73	
				1732.5	20175	16.70	17.73	
				1750	20350	16.72	17.73	
		50RB			1715	20000	16.65	17.73
		50RB			1732.5	20175	16.61	17.73
		50RB			1750	20350	16.69	17.73
		16-QAM	1 RB	0	1715	20000	16.67	17.73
					1732.5	20175	16.65	17.73
					1750	20350	16.69	17.73
	1715				20000	16.59	17.73	
	1732.5				20175	16.56	17.73	
	1750				20350	16.65	17.73	
	25			1715	20000	16.46	17.73	
				1732.5	20175	16.66	17.73	
				1750	20350	16.64	17.73	
				1715	20000	16.68	17.73	
				1732.5	20175	16.65	17.73	
				1750	20350	16.64	17.73	
	49			1715	20000	16.65	17.73	
				1732.5	20175	16.67	17.73	
				1750	20350	16.64	17.73	
				1715	20000	16.65	17.73	
				1732.5	20175	16.67	17.73	
				1750	20350	16.64	17.73	
	25 RB		0	1715	20000	16.68	17.73	
				1732.5	20175	16.65	17.73	
				1750	20350	16.64	17.73	
			12	1715	20000	16.65	17.73	
				1732.5	20175	16.67	17.73	
				1750	20350	16.64	17.73	
		25	1715	20000	16.57	17.73		
			1732.5	20175	16.61	17.73		
			1750	20350	16.66	17.73		
50RB			1715	20000	16.60	17.73		
50RB			1732.5	20175	16.69	17.73		
50RB			1750	20350	16.62	17.73		

FDD Band 4								
BW(MHz)	Modulation	RB Size	RB Offset	Frequency (MHz)	Channel	Plimit (dBm)	reported Plimit (dBm)	
5	QPSK	1 RB	0	1712.5	19975	16.54	17.73	
				1732.5	20175	16.56	17.73	
				1752.5	20375	16.65	17.73	
			12	1712.5	19975	16.62	17.73	
				1732.5	20175	16.51	17.73	
				1752.5	20375	16.66	17.73	
			24	1712.5	19975	16.71	17.73	
				1732.5	20175	16.64	17.73	
				1752.5	20375	16.75	17.73	
		12 RB	0	1712.5	19975	16.70	17.73	
				1732.5	20175	16.69	17.73	
				1752.5	20375	16.82	17.73	
			6	1712.5	19975	16.72	17.73	
				1732.5	20175	16.56	17.73	
				1752.5	20375	16.73	17.73	
			13	1712.5	19975	16.61	17.73	
				1732.5	20175	16.71	17.73	
				1752.5	20375	16.61	17.73	
		25RB	1712.5	19975	16.67	17.73		
			1732.5	20175	16.69	17.73		
			1752.5	20375	16.65	17.73		
		16-QAM	1 RB	0	1712.5	19975	16.37	17.73
					1732.5	20175	16.41	17.73
					1752.5	20375	16.54	17.73
	12			1712.5	19975	16.67	17.73	
				1732.5	20175	16.68	17.73	
				1752.5	20375	16.49	17.73	
	24			1712.5	19975	16.55	17.73	
				1732.5	20175	16.57	17.73	
				1752.5	20375	16.60	17.73	
	12 RB		0	1712.5	19975	16.58	17.73	
				1732.5	20175	16.60	17.73	
				1752.5	20375	16.67	17.73	
			6	1712.5	19975	16.59	17.73	
				1732.5	20175	16.53	17.73	
				1752.5	20375	16.64	17.73	
			13	1712.5	19975	16.60	17.73	
				1732.5	20175	16.58	17.73	
				1752.5	20375	16.67	17.73	
	25RB		1712.5	19975	16.66	17.73		
			1732.5	20175	16.66	17.73		
			1752.5	20375	16.64	17.73		

FDD Band 4								
BW(MHz)	Modulation	RB Size	RB Offset	Frequency (MHz)	Channel	Plimit (dBm)	reported Plimit (dBm)	
3	QPSK	1 RB	0	1711.5	19965	16.59	17.73	
				1732.5	20175	16.68	17.73	
				1753.5	20385	16.39	17.73	
			7	1711.5	19965	16.68	17.73	
				1732.5	20175	16.70	17.73	
				1753.5	20385	16.40	17.73	
		14	1711.5	19965	16.49	17.73		
			1732.5	20175	16.39	17.73		
			1753.5	20385	16.42	17.73		
		8 RB	0	1711.5	19965	16.50	17.73	
				1732.5	20175	16.68	17.73	
				1753.5	20385	16.55	17.73	
			4	1711.5	19965	16.54	17.73	
				1732.5	20175	16.69	17.73	
				1753.5	20385	16.69	17.73	
			7	1711.5	19965	16.65	17.73	
				1732.5	20175	16.68	17.73	
				1753.5	20385	16.66	17.73	
	15RB	1711.5	19965	16.64	17.73			
		1732.5	20175	16.48	17.73			
		1753.5	20385	16.69	17.73			
	16-QAM	1 RB	0	1711.5	19965	16.55	17.73	
				1732.5	20175	16.61	17.73	
				1753.5	20385	16.68	17.73	
			7	1711.5	19965	16.62	17.73	
				1732.5	20175	16.55	17.73	
				1753.5	20385	16.67	17.73	
			14	1711.5	19965	16.63	17.73	
				1732.5	20175	16.55	17.73	
				1753.5	20385	16.64	17.73	
			8 RB	0	1711.5	19965	16.58	17.73
					1732.5	20175	16.60	17.73
					1753.5	20385	16.61	17.73
		4		1711.5	19965	16.54	17.73	
				1732.5	20175	16.56	17.73	
				1753.5	20385	16.60	17.73	
		7		1711.5	19965	16.64	17.73	
				1732.5	20175	16.63	17.73	
				1753.5	20385	16.64	17.73	
		15RB	1711.5	19965	16.61	17.73		
			1732.5	20175	16.66	17.73		
			1753.5	20385	16.67	17.73		

FDD Band 4								
BW(MHz)	Modulation	RB Size	RB Offset	Frequency (MHz)	Channel	Plimit (dBm)	reported Plimit (dBm)	
1.4	QPSK	1 RB	0	1710.7	19957	16.69	17.73	
				1732.5	20175	16.64	17.73	
				1754.3	20393	16.61	17.73	
			2	1710.7	19957	16.42	17.73	
				1732.5	20175	16.62	17.73	
				1754.3	20393	16.68	17.73	
			5	1710.7	19957	16.69	17.73	
				1732.5	20175	16.68	17.73	
				1754.3	20393	16.67	17.73	
		3 RB	0	1710.7	19957	16.64	17.73	
				1732.5	20175	16.60	17.73	
				1754.3	20393	16.64	17.73	
			2	1710.7	19957	16.58	17.73	
				1732.5	20175	16.55	17.73	
				1754.3	20393	16.69	17.73	
			3	1710.7	19957	16.40	17.73	
				1732.5	20175	16.61	17.73	
				1754.3	20393	16.57	17.73	
		6RB	1710.7	19957	16.48	17.73		
			1732.5	20175	16.59	17.73		
			1754.3	20393	16.69	17.73		
		16-QAM	1 RB	0	1710.7	19957	16.50	17.73
					1732.5	20175	16.47	17.73
					1754.3	20393	16.65	17.73
	2			1710.7	19957	16.55	17.73	
				1732.5	20175	16.61	17.73	
				1754.3	20393	16.65	17.73	
	5			1710.7	19957	16.50	17.73	
				1732.5	20175	16.66	17.73	
				1754.3	20393	16.67	17.73	
	3 RB			0	1710.7	19957	16.62	17.73
					1732.5	20175	16.63	17.73
					1754.3	20393	16.68	17.73
				2	1710.7	19957	16.57	17.73
					1732.5	20175	16.56	17.73
					1754.3	20393	16.69	17.73
			3	1710.7	19957	16.64	17.73	
				1732.5	20175	16.63	17.73	
				1754.3	20393	16.62	17.73	
	6RB		1710.7	19957	16.61	17.73		
			1732.5	20175	16.63	17.73		
			1754.3	20393	16.63	17.73		

5.2.6 LTE FDD Band 5: All measured P_{limit} are within 19.27dBm and 20.73dBm

FDD Band 5								
BW(MHz)	Modulation	RB Size	RB Offset	Frequency (MHz)	Channel	P_{limit} (dBm)	reported P_{limit} (dBm)	
10	QPSK	1 RB	0	829	20450	20.16	20.73	
				836.5	20525	20.08	20.73	
				844	20600	20.19	20.73	
			25	829	20450	19.73	20.73	
				836.5	20525	20.24	20.73	
				844	20600	20.22	20.73	
				829	20450	20.57	20.73	
				836.5	20525	20.10	20.73	
				844	20600	20.02	20.73	
		49	829	20450	20.11	20.73		
			836.5	20525	20.13	20.73		
			844	20600	20.16	20.73		
			829	20450	20.04	20.73		
			836.5	20525	20.15	20.73		
			844	20600	20.20	20.73		
			829	20450	20.20	20.73		
			836.5	20525	20.16	20.73		
			844	20600	20.26	20.73		
		50RB	829	20450	20.11	20.73		
			836.5	20525	20.17	20.73		
			844	20600	20.13	20.73		
			829	20450	19.75	20.73		
			836.5	20525	19.94	20.73		
			844	20600	20.07	20.73		
	829		20450	19.68	20.73			
	836.5		20525	19.86	20.73			
	844		20600	19.92	20.73			
	16-QAM	1 RB	0	829	20450	20.29	20.73	
				836.5	20525	19.78	20.73	
				844	20600	20.21	20.73	
			25	829	20450	20.04	20.73	
				836.5	20525	20.18	20.73	
				844	20600	20.18	20.73	
				829	20450	19.93	20.73	
				836.5	20525	20.21	20.73	
				844	20600	20.12	20.73	
			49	829	20450	20.24	20.73	
				836.5	20525	20.24	20.73	
				844	20600	20.15	20.73	
		829		20450	20.11	20.73		
		836.5		20525	20.17	20.73		
		844		20600	20.13	20.73		
		25 RB		0	829	20450	20.04	20.73
					836.5	20525	20.18	20.73
					844	20600	20.18	20.73
			12	829	20450	19.93	20.73	
				836.5	20525	20.21	20.73	
				844	20600	20.12	20.73	
829				20450	20.24	20.73		
836.5				20525	20.24	20.73		
844				20600	20.15	20.73		
50RB	829		20450	20.11	20.73			
	836.5		20525	20.17	20.73			
	844		20600	20.13	20.73			

FDD Band 5								
BW(MHz)	Modulation	RB Size	RB Offset	Frequency (MHz)	Channel	Plimit (dBm)	reported Plimit (dBm)	
5	QPSK	1 RB	0	826.5	20425	20.06	20.73	
				836.5	20525	20.19	20.73	
				846.5	20625	20.18	20.73	
			12	826.5	20425	20.11	20.73	
				836.5	20525	20.09	20.73	
				846.5	20625	20.13	20.73	
			24	826.5	20425	19.78	20.73	
				836.5	20525	20.17	20.73	
				846.5	20625	19.92	20.73	
		12 RB	0	826.5	20425	20.09	20.73	
				836.5	20525	20.20	20.73	
				846.5	20625	20.20	20.73	
			6	826.5	20425	20.21	20.73	
				836.5	20525	20.13	20.73	
				846.5	20625	20.09	20.73	
			13	826.5	20425	20.05	20.73	
				836.5	20525	20.14	20.73	
				846.5	20625	20.14	20.73	
		25RB	826.5	20425	19.97	20.73		
			836.5	20525	20.14	20.73		
			846.5	20625	20.22	20.73		
		16-QAM	1 RB	0	826.5	20425	20.31	20.73
					836.5	20525	19.86	20.73
					846.5	20625	20.32	20.73
	12			826.5	20425	20.10	20.73	
				836.5	20525	19.79	20.73	
				846.5	20625	20.06	20.73	
	24			826.5	20425	19.77	20.73	
				836.5	20525	20.29	20.73	
				846.5	20625	19.80	20.73	
	12 RB			0	826.5	20425	20.26	20.73
					836.5	20525	20.13	20.73
					846.5	20625	20.19	20.73
			6	826.5	20425	20.28	20.73	
				836.5	20525	20.19	20.73	
				846.5	20625	20.34	20.73	
			13	826.5	20425	20.23	20.73	
				836.5	20525	20.21	20.73	
				846.5	20625	20.14	20.73	
	25RB		826.5	20425	20.06	20.73		
			836.5	20525	20.22	20.73		
			846.5	20625	20.20	20.73		

FDD Band 5								
BW(MHz)	Modulation	RB Size	RB Offset	Frequency (MHz)	Channel	<i>Plimit</i> (dBm)	<i>reported Plimit</i> (dBm)	
3	QPSK	1 RB	0	825.5	20415	20.03	20.73	
				836.5	20525	20.22	20.73	
				847.5	20635	20.07	20.73	
			7	825.5	20415	19.99	20.73	
				836.5	20525	20.26	20.73	
				847.5	20635	20.08	20.73	
			14	825.5	20415	20.10	20.73	
				836.5	20525	20.20	20.73	
				847.5	20635	20.04	20.73	
		8 RB	0	825.5	20415	20.10	20.73	
				836.5	20525	20.16	20.73	
				847.5	20635	20.23	20.73	
			4	825.5	20415	20.08	20.73	
				836.5	20525	20.21	20.73	
				847.5	20635	20.21	20.73	
			7	825.5	20415	20.06	20.73	
				836.5	20525	20.14	20.73	
				847.5	20635	20.06	20.73	
		15RB	825.5	20415	20.17	20.73		
			836.5	20525	20.21	20.73		
			847.5	20635	20.17	20.73		
		16-QAM	1 RB	0	825.5	20415	19.92	20.73
					836.5	20525	20.11	20.73
					847.5	20635	20.22	20.73
	7			825.5	20415	19.98	20.73	
				836.5	20525	20.23	20.73	
				847.5	20635	19.89	20.73	
	14			825.5	20415	19.72	20.73	
				836.5	20525	20.32	20.73	
				847.5	20635	20.19	20.73	
	8 RB			0	825.5	20415	20.20	20.73
					836.5	20525	20.21	20.73
					847.5	20635	20.09	20.73
			4	825.5	20415	20.23	20.73	
				836.5	20525	20.28	20.73	
				847.5	20635	20.28	20.73	
			7	825.5	20415	20.18	20.73	
				836.5	20525	20.15	20.73	
				847.5	20635	20.14	20.73	
	15RB		825.5	20415	20.15	20.73		
			836.5	20525	20.15	20.73		
			847.5	20635	20.16	20.73		

FDD Band 5								
BW(MHz)	Modulation	RB Size	RB Offset	Frequency (MHz)	Channel	<i>Plimit</i> (dBm)	<i>reported Plimit</i> (dBm)	
1.4	QPSK	1 RB	0	824.7	20407	20.12	20.73	
				836.5	20525	20.15	20.73	
				848.3	20643	20.04	20.73	
			2	824.7	20407	20.07	20.73	
				836.5	20525	20.16	20.73	
				848.3	20643	19.99	20.73	
			5	824.7	20407	20.28	20.73	
				836.5	20525	20.19	20.73	
				848.3	20643	20.08	20.73	
		3 RB	0	824.7	20407	20.15	20.73	
				836.5	20525	20.17	20.73	
				848.3	20643	20.05	20.73	
			2	824.7	20407	20.14	20.73	
				836.5	20525	20.11	20.73	
				848.3	20643	20.26	20.73	
			3	824.7	20407	20.11	20.73	
				836.5	20525	20.14	20.73	
				848.3	20643	20.09	20.73	
		6RB	824.7	20407	20.15	20.73		
			836.5	20525	20.22	20.73		
			848.3	20643	20.00	20.73		
		16-QAM	1 RB	0	824.7	20407	20.02	20.73
					836.5	20525	20.01	20.73
					848.3	20643	19.90	20.73
	2			824.7	20407	20.21	20.73	
				836.5	20525	20.55	20.73	
				848.3	20643	20.00	20.73	
	5			824.7	20407	19.64	20.73	
				836.5	20525	20.20	20.73	
				848.3	20643	20.14	20.73	
	3 RB			0	824.7	20407	19.90	20.73
					836.5	20525	20.18	20.73
					848.3	20643	20.16	20.73
			2	824.7	20407	20.15	20.73	
				836.5	20525	20.01	20.73	
				848.3	20643	19.93	20.73	
			3	824.7	20407	19.93	20.73	
				836.5	20525	20.07	20.73	
				848.3	20643	19.96	20.73	
	6RB		824.7	20407	19.96	20.73		
			836.5	20525	20.13	20.73		
			848.3	20643	20.04	20.73		

5.2.7 LTE FDD Band 7: All measured P_{limit} are within 18.27dBm and 19.73dBm

FDD Band 7								
BW(MHz)	Modulation	RB Size	RB Offset	Frequency (MHz)	Channel	P_{limit} (dBm)	reported P_{limit} (dBm)	
20	QPSK	1 RB	0	2510	20850	19.10	19.73	
				2535	21100	19.03	19.73	
				2560	21350	18.99	19.73	
			50	2510	20850	19.16	19.73	
				2535	21100	19.23	19.73	
				2560	21350	19.15	19.73	
			99	2510	20850	19.20	19.73	
				2535	21100	19.32	19.73	
				2560	21350	19.34	19.73	
		50 RB	0	2510	20850	19.47	19.73	
				2535	21100	19.12	19.73	
				2560	21350	19.15	19.73	
			25	2510	20850	19.28	19.73	
				2535	21100	19.19	19.73	
				2560	21350	19.24	19.73	
			50	2510	20850	19.17	19.73	
				2535	21100	19.26	19.73	
				2560	21350	19.20	19.73	
		100RB	2510	20850	19.20	19.73		
			2535	21100	19.16	19.73		
			2560	21350	19.22	19.73		
		16-QAM	1 RB	0	2510	20850	19.18	19.73
					2535	21100	19.35	19.73
					2560	21350	18.76	19.73
	50			2510	20850	19.38	19.73	
				2535	21100	19.05	19.73	
				2560	21350	19.41	19.73	
	99			2510	20850	19.13	19.73	
				2535	21100	19.44	19.73	
				2560	21350	19.42	19.73	
	50 RB		0	2510	20850	19.24	19.73	
				2535	21100	19.09	19.73	
				2560	21350	19.21	19.73	
			25	2510	20850	19.29	19.73	
				2535	21100	19.21	19.73	
				2560	21350	19.16	19.73	
			50	2510	20850	19.29	19.73	
				2535	21100	19.15	19.73	
				2560	21350	19.20	19.73	
	100RB		2510	20850	19.19	19.73		
			2535	21100	19.18	19.73		
			2560	21350	19.23	19.73		

FDD Band 7								
BW(MHz)	Modulation	RB Size	RB Offset	Frequency (MHz)	Channel	Plimit (dBm)	reported Plimit (dBm)	
15	QPSK	1 RB	0	2507.5	20825	18.92	19.73	
				2535	21100	18.92	19.73	
				2562.5	21375	18.90	19.73	
			36	2507.5	20825	19.11	19.73	
				2535	21100	19.06	19.73	
				2562.5	21375	18.96	19.73	
			74	2507.5	20825	18.95	19.73	
				2535	21100	19.28	19.73	
				2562.5	21375	19.27	19.73	
		36 RB	0	2507.5	20825	19.32	19.73	
				2535	21100	18.90	19.73	
				2562.5	21375	19.08	19.73	
			18	2507.5	20825	19.27	19.73	
				2535	21100	19.05	19.73	
				2562.5	21375	19.02	19.73	
			37	2507.5	20825	18.96	19.73	
				2535	21100	19.21	19.73	
				2562.5	21375	18.98	19.73	
		75RB	2507.5	20825	18.99	19.73		
			2535	21100	18.99	19.73		
			2562.5	21375	19.04	19.73		
		16-QAM	1 RB	0	2507.5	20825	19.03	19.73
					2535	21100	19.13	19.73
					2562.5	21375	18.72	19.73
	36			2507.5	20825	19.21	19.73	
				2535	21100	19.04	19.73	
				2562.5	21375	19.27	19.73	
	74			2507.5	20825	19.12	19.73	
				2535	21100	19.23	19.73	
				2562.5	21375	19.27	19.73	
	36 RB			0	2507.5	20825	19.15	19.73
					2535	21100	18.86	19.73
					2562.5	21375	18.97	19.73
			18	2507.5	20825	19.08	19.73	
				2535	21100	18.98	19.73	
				2562.5	21375	19.08	19.73	
			37	2507.5	20825	19.27	19.73	
				2535	21100	18.92	19.73	
				2562.5	21375	19.16	19.73	
	75RB		2507.5	20825	19.15	19.73		
			2535	21100	18.94	19.73		
			2562.5	21375	19.07	19.73		

FDD Band 7								
BW(MHz)	Modulation	RB Size	RB Offset	Frequency (MHz)	Channel	Plimit (dBm)	reported Plimit (dBm)	
10	QPSK	1 RB	0	2505	20800	18.89	19.73	
				2535	21100	18.79	19.73	
				2565	21400	18.76	19.73	
			25	2505	20800	18.98	19.73	
				2535	21100	19.05	19.73	
				2565	21400	18.90	19.73	
			49	2505	20800	18.98	19.73	
				2535	21100	19.22	19.73	
				2565	21400	19.11	19.73	
		25 RB	0	2505	20800	19.31	19.73	
				2535	21100	19.10	19.73	
				2565	21400	18.94	19.73	
			12	2505	20800	19.04	19.73	
				2535	21100	19.13	19.73	
				2565	21400	18.99	19.73	
			25	2505	20800	19.00	19.73	
				2535	21100	19.01	19.73	
				2565	21400	19.05	19.73	
		50RB	2505	20800	19.01	19.73		
			2535	21100	19.02	19.73		
			2565	21400	19.19	19.73		
		16-QAM	1 RB	0	2505	20800	19.01	19.73
					2535	21100	19.10	19.73
					2565	21400	18.61	19.73
	25			2505	20800	19.24	19.73	
				2535	21100	19.02	19.73	
				2565	21400	19.16	19.73	
	49			2505	20800	19.05	19.73	
				2535	21100	19.23	19.73	
				2565	21400	19.37	19.73	
	25 RB			0	2505	20800	18.99	19.73
					2535	21100	18.95	19.73
					2565	21400	19.10	19.73
			12	2505	20800	19.27	19.73	
				2535	21100	19.11	19.73	
				2565	21400	19.09	19.73	
			25	2505	20800	19.23	19.73	
				2535	21100	18.98	19.73	
				2565	21400	19.08	19.73	
			50RB	2505	20800	19.18	19.73	
				2535	21100	19.05	19.73	
				2565	21400	19.20	19.73	

FDD Band 7								
BW(MHz)	Modulation	RB Size	RB Offset	Frequency (MHz)	Channel	Plimit (dBm)	reported Plimit (dBm)	
5	QPSK	1 RB	0	2502.5	20775	19.01	19.73	
				2535	21100	18.86	19.73	
				2567.5	21425	18.79	19.73	
			12	2502.5	20775	19.02	19.73	
				2535	21100	19.07	19.73	
				2567.5	21425	18.98	19.73	
			24	2502.5	20775	19.04	19.73	
				2535	21100	19.08	19.73	
				2567.5	21425	19.30	19.73	
		12 RB	0	2502.5	20775	19.32	19.73	
				2535	21100	18.93	19.73	
				2567.5	21425	19.07	19.73	
			6	2502.5	20775	19.14	19.73	
				2535	21100	19.07	19.73	
				2567.5	21425	19.22	19.73	
			13	2502.5	20775	18.99	19.73	
				2535	21100	19.03	19.73	
				2567.5	21425	19.13	19.73	
		25RB	2502.5	20775	19.19	19.73		
			2535	21100	18.93	19.73		
			2567.5	21425	18.98	19.73		
		16-QAM	1 RB	0	2502.5	20775	18.94	19.73
					2535	21100	19.29	19.73
					2567.5	21425	18.88	19.73
	12			2502.5	20775	19.14	19.73	
				2535	21100	18.84	19.73	
				2567.5	21425	19.25	19.73	
	24			2502.5	20775	18.96	19.73	
				2535	21100	19.38	19.73	
				2567.5	21425	19.35	19.73	
	12 RB			0	2502.5	20775	19.07	19.73
					2535	21100	18.85	19.73
					2567.5	21425	19.10	19.73
			6	2502.5	20775	19.07	19.73	
				2535	21100	19.19	19.73	
				2567.5	21425	19.14	19.73	
			13	2502.5	20775	19.14	19.73	
				2535	21100	19.10	19.73	
				2567.5	21425	19.04	19.73	
	25RB		2502.5	20775	19.04	19.73		
			2535	21100	19.04	19.73		
			2567.5	21425	19.12	19.73		

5.2.8 LTE FDD Band 12: All measured P_{limit} are within 20.77dBm and 22.23dBm

FDD Band 12								
BW(MHz)	Modulation	RB Size	RB Offset	Frequency (MHz)	Channel	P_{limit} (dBm)	reported P_{limit} (dBm)	
10	QPSK	1 RB	0	704	23060	21.34	22.23	
				707.5	23095	21.36	22.23	
				711	23130	21.44	22.23	
			25	704	23060	21.26	22.23	
				707.5	23095	21.57	22.23	
				711	23130	21.47	22.23	
			49	704	23060	21.60	22.23	
				707.5	23095	21.54	22.23	
				711	23130	21.42	22.23	
		25 RB	0	704	23060	21.34	22.23	
				707.5	23095	21.51	22.23	
				711	23130	21.54	22.23	
			12	704	23060	21.46	22.23	
				707.5	23095	21.61	22.23	
				711	23130	21.39	22.23	
			25	704	23060	21.90	22.23	
				707.5	23095	21.65	22.23	
				711	23130	21.41	22.23	
		50RB		704	23060	21.56	22.23	
		50RB		707.5	23095	21.60	22.23	
		50RB		711	23130	21.59	22.23	
		16-QAM	1 RB	0	704	23060	20.89	22.23
					707.5	23095	21.18	22.23
					711	23130	21.02	22.23
	25			704	23060	21.59	22.23	
				707.5	23095	21.78	22.23	
				711	23130	21.72	22.23	
	49			704	23060	21.84	22.23	
				707.5	23095	21.57	22.23	
				711	23130	21.51	22.23	
	25 RB			0	704	23060	20.94	22.23
					707.5	23095	21.13	22.23
					711	23130	21.13	22.23
			12	704	23060	20.94	22.23	
				707.5	23095	21.53	22.23	
				711	23130	21.00	22.23	
			25	704	23060	20.98	22.23	
				707.5	23095	21.13	22.23	
				711	23130	20.94	22.23	
			50RB		704	23060	20.92	22.23
			50RB		707.5	23095	21.10	22.23
			50RB		711	23130	21.00	22.23

FDD Band 12								
BW(MHz)	Modulation	RB Size	RB Offset	Frequency (MHz)	Channel	Plimit (dBm)	reported Plimit (dBm)	
5	QPSK	1 RB	0	701.5	23035	21.29	22.23	
				707.5	23095	21.43	22.23	
				713.5	23155	21.49	22.23	
			12	701.5	23035	21.42	22.23	
				707.5	23095	21.49	22.23	
				713.5	23155	21.55	22.23	
			24	701.5	23035	21.55	22.23	
				707.5	23095	21.75	22.23	
				713.5	23155	21.44	22.23	
		12 RB	0	701.5	23035	21.42	22.23	
				707.5	23095	21.35	22.23	
				713.5	23155	21.40	22.23	
			6	701.5	23035	21.53	22.23	
				707.5	23095	21.59	22.23	
				713.5	23155	21.52	22.23	
			13	701.5	23035	21.58	22.23	
				707.5	23095	21.61	22.23	
				713.5	23155	21.62	22.23	
		25RB	701.5	23035	21.43	22.23		
			707.5	23095	21.60	22.23		
			713.5	23155	21.49	22.23		
		16-QAM	1 RB	0	701.5	23035	21.08	22.23
					707.5	23095	21.15	22.23
					713.5	23155	21.55	22.23
	12			701.5	23035	21.32	22.23	
				707.5	23095	21.55	22.23	
				713.5	23155	21.39	22.23	
	24			701.5	23035	21.56	22.23	
				707.5	23095	21.73	22.23	
				713.5	23155	21.16	22.23	
	12 RB		0	701.5	23035	20.90	22.23	
				707.5	23095	21.20	22.23	
				713.5	23155	21.01	22.23	
			6	701.5	23035	20.95	22.23	
				707.5	23095	21.33	22.23	
				713.5	23155	21.01	22.23	
			13	701.5	23035	21.04	22.23	
				707.5	23095	21.21	22.23	
				713.5	23155	21.05	22.23	
	25RB		701.5	23035	21.02	22.23		
			707.5	23095	21.34	22.23		
			713.5	23155	20.99	22.23		

FDD Band 12								
BW(MHz)	Modulation	RB Size	RB Offset	Frequency (MHz)	Channel	Plimit (dBm)	reported Plimit (dBm)	
3	QPSK	1 RB	0	700.5	23025	21.19	22.23	
				707.5	23095	21.46	22.23	
				714.5	23165	21.49	22.23	
			7	700.5	23025	21.15	22.23	
				707.5	23095	21.56	22.23	
				714.5	23165	21.37	22.23	
			14	700.5	23025	21.56	22.23	
				707.5	23095	21.66	22.23	
				714.5	23165	21.48	22.23	
		8 RB	0	700.5	23025	21.47	22.23	
				707.5	23095	21.62	22.23	
				714.5	23165	21.40	22.23	
			4	700.5	23025	21.22	22.23	
				707.5	23095	21.59	22.23	
				714.5	23165	21.47	22.23	
			7	700.5	23025	21.45	22.23	
				707.5	23095	21.68	22.23	
				714.5	23165	21.47	22.23	
		15RB	700.5	23025	21.43	22.23		
			707.5	23095	21.76	22.23		
			714.5	23165	21.54	22.23		
		16-QAM	1 RB	0	700.5	23025	21.45	22.23
					707.5	23095	21.54	22.23
					714.5	23165	21.65	22.23
	7			700.5	23025	20.92	22.23	
				707.5	23095	21.89	22.23	
				714.5	23165	21.47	22.23	
	14			700.5	23025	21.61	22.23	
				707.5	23095	21.56	22.23	
				714.5	23165	21.28	22.23	
	8 RB			0	700.5	23025	20.90	22.23
					707.5	23095	21.11	22.23
					714.5	23165	21.03	22.23
			4	700.5	23025	21.06	22.23	
				707.5	23095	21.12	22.23	
				714.5	23165	21.01	22.23	
			7	700.5	23025	20.98	22.23	
				707.5	23095	21.23	22.23	
				714.5	23165	21.02	22.23	
	15RB		700.5	23025	20.92	22.23		
			707.5	23095	21.17	22.23		
			714.5	23165	21.04	22.23		

FDD Band 12								
BW(MHz)	Modulation	RB Size	RB Offset	Frequency (MHz)	Channel	Plimit (dBm)	reported Plimit (dBm)	
1.4	QPSK	1 RB	0	699.7	23017	21.28	22.23	
				707.5	23095	21.57	22.23	
				715.3	23173	21.44	22.23	
			2	699.7	23017	21.40	22.23	
				707.5	23095	21.58	22.23	
				715.3	23173	21.52	22.23	
			5	699.7	23017	21.20	22.23	
				707.5	23095	21.80	22.23	
				715.3	23173	21.54	22.23	
		3 RB	0	699.7	23017	21.59	22.23	
				707.5	23095	21.59	22.23	
				715.3	23173	21.50	22.23	
			2	699.7	23017	21.53	22.23	
				707.5	23095	21.61	22.23	
				715.3	23173	21.52	22.23	
			3	699.7	23017	21.42	22.23	
				707.5	23095	21.65	22.23	
				715.3	23173	21.48	22.23	
		6RB	699.7	23017	21.43	22.23		
			707.5	23095	21.66	22.23		
			715.3	23173	21.60	22.23		
	16-QAM	1 RB	0	699.7	23017	21.42	22.23	
				707.5	23095	21.81	22.23	
				715.3	23173	21.31	22.23	
			2	699.7	23017	21.63	22.23	
				707.5	23095	21.78	22.23	
				715.3	23173	21.27	22.23	
			5	699.7	23017	21.06	22.23	
				707.5	23095	21.42	22.23	
				715.3	23173	21.60	22.23	
			3 RB	0	699.7	23017	21.27	22.23
					707.5	23095	21.19	22.23
					715.3	23173	21.41	22.23
				2	699.7	23017	21.36	22.23
					707.5	23095	21.36	22.23
					715.3	23173	21.68	22.23
		3		699.7	23017	21.43	22.23	
				707.5	23095	21.45	22.23	
				715.3	23173	21.56	22.23	
		6RB	699.7	23017	20.93	22.23		
			707.5	23095	21.01	22.23		
			715.3	23173	20.99	22.23		

5.2.9 LTE FDD Band 17: All measured P_{limit} are within 20.77dBm and 22.23dBm

FDD Band 17								
BW(MHz)	Modulation	RB Size	RB Offset	Frequency (MHz)	Channel	P_{limit} (dBm)	reported P_{limit} (dBm)	
10	QPSK	1 RB	0	709	23780	21.12	22.23	
				710	23790	21.98	22.23	
				711	23800	21.47	22.23	
			25	709	23780	21.64	22.23	
				710	23790	21.73	22.23	
				711	23800	21.43	22.23	
			49	709	23780	21.53	22.23	
				710	23790	21.56	22.23	
				711	23800	21.59	22.23	
		25 RB	0	709	23780	21.60	22.23	
				710	23790	21.61	22.23	
				711	23800	21.63	22.23	
			12	709	23780	21.65	22.23	
				710	23790	21.49	22.23	
				711	23800	21.51	22.23	
			25	709	23780	21.72	22.23	
				710	23790	21.54	22.23	
				711	23800	21.70	22.23	
		50RB	709	23780	21.60	22.23		
			710	23790	21.66	22.23		
			711	23800	21.63	22.23		
		16-QAM	1 RB	0	709	23780	21.14	22.23
					710	23790	21.30	22.23
					711	23800	21.62	22.23
	25			709	23780	21.77	22.23	
				710	23790	21.89	22.23	
				711	23800	21.08	22.23	
	49			709	23780	21.81	22.23	
				710	23790	21.76	22.23	
				711	23800	21.82	22.23	
	25 RB		0	709	23780	21.15	22.23	
				710	23790	21.06	22.23	
				711	23800	21.16	22.23	
			12	709	23780	21.22	22.23	
				710	23790	21.10	22.23	
				711	23800	21.14	22.23	
			25	709	23780	21.10	22.23	
				710	23790	21.12	22.23	
				711	23800	21.21	22.23	
	50RB		709	23780	21.06	22.23		
			710	23790	21.08	22.23		
			711	23800	21.17	22.23		

FDD Band 17								
0	Modulation	RB Size	RB Offset	Frequency (MHz)	Channel	Plimit (dBm)	reported Plimit (dBm)	
5	QPSK	1 RB	0	706.5	23755	21.33	22.23	
				710	23790	21.59	22.23	
				713.5	23825	21.42	22.23	
			12	706.5	23755	21.30	22.23	
				710	23790	21.68	22.23	
				713.5	23825	21.55	22.23	
			24	706.5	23755	21.68	22.23	
				710	23790	21.58	22.23	
				713.5	23825	21.63	22.23	
		12 RB	0	706.5	23755	21.57	22.23	
				710	23790	21.63	22.23	
				713.5	23825	21.60	22.23	
			6	706.5	23755	21.30	22.23	
				710	23790	21.59	22.23	
				713.5	23825	21.57	22.23	
			13	706.5	23755	21.71	22.23	
				710	23790	21.53	22.23	
				713.5	23825	21.56	22.23	
		25RB	706.5	23755	21.42	22.23		
			710	23790	21.62	22.23		
			713.5	23825	21.51	22.23		
	16-QAM	1 RB	0	706.5	23755	21.16	22.23	
				710	23790	21.82	22.23	
				713.5	23825	21.27	22.23	
			12	706.5	23755	21.45	22.23	
				710	23790	21.50	22.23	
				713.5	23825	21.68	22.23	
			24	706.5	23755	21.49	22.23	
				710	23790	20.97	22.23	
				713.5	23825	21.58	22.23	
			12 RB	0	706.5	23755	21.04	22.23
					710	23790	21.21	22.23
					713.5	23825	21.00	22.23
				6	706.5	23755	21.10	22.23
					710	23790	21.17	22.23
					713.5	23825	21.05	22.23
		13		706.5	23755	21.47	22.23	
				710	23790	20.98	22.23	
				713.5	23825	21.02	22.23	
		25RB	706.5	23755	21.24	22.23		
			710	23790	21.22	22.23		
			713.5	23825	21.20	22.23		

5.3 SAR Measurements at P_{limit}

5.3.1 WCDMA Band II

Mode	Position	Distance [mm]	CH	Freq. [MHz]	reported P_{limit} (dBm)	Measured P_{limit} (dBm)	Averaged SAR over 1g (W/kg)	
							Measured	Reported
WCDMA Band II (R99)	Right	0	9538	1907.6	18.2	17.68	0.080	0.090
	Back	0	9262	1852.4	18.2	17.43	0.719	0.858
	Back	0	9400	1880	18.2	17.59	0.739	0.850
	Back	0	9538	1907.6	18.2	17.68	0.761	0.858
	Top	0	9538	1907.6	18.2	17.68	0.420	0.473

5.3.2 WCDMA Band IV

Mode	Position	Distance [mm]	CH	Freq. [MHz]	reported P_{limit} (dBm)	Measured P_{limit} (dBm)	Averaged SAR over 1g (W/kg)	
							Measured	Reported
WCDMA Band IV (R99)	Back	0	1312	1712.4	18.2	17.54	0.844	0.983
	Back	0	1412	1732.4	18.2	17.66	0.842	0.953
	Back	0	1513	1752.6	18.2	17.65	0.808	0.917
	Top	0	1412	1732.4	18.2	17.66	0.478	0.541

5.3.3 WCDMA Band V

Mode	Position	Distance [mm]	CH	Freq. [MHz]	reported Plimit (dBm)	Measured Plimit (dBm)	Averaged SAR over 1g (W/kg)	
							Measured Margin=0	Reported Margin=0
WCDMA Band V (R99)	Back	0	4132	826.4	19.7	18.43	0.884	1.184
	Back	0	4183	836.6	19.7	18.41	0.894	1.203
	Back	0	4233	846.6	19.7	18.45	0.909	1.212
	Top	0	4233	846.6	19.7	18.45	0.581	0.775

5.3.4 LTE FDD Band 2

Mode	RB/ RB offset	Position	Distance [mm]	CH	Freq. [MHz]	reported Plimit (dBm)	Measured Plimit (dBm)	Averaged SAR over 1g (W/kg)	
								Measured	Reported
LTE Band 2 (20MHz) QPSK	1/50	Right	0	19100	1900	18.73	18.60	0.090	0.093
	50/25	Right	0	19100	1900	18.73	18.56	0.091	0.094
	100/0	Right	0	18900	1880	18.73	18.58	0.091	0.094
	1/0	Back	0	18700	1860	18.73	18.45	0.998	1.064
	1/99	Back	0	18900	1880	18.73	18.57	1.010	1.048
	1/50	Back	0	19100	1900	18.73	18.60	1.030	1.061
	1/50	Top	0	19100	1900	18.73	18.60	0.446	0.460
	50/50	Back	0	18700	1860	18.73	18.24	0.938	1.050
	50/0	Back	0	18900	1880	18.73	18.51	0.993	1.045
	50/25	Back	0	19100	1900	18.73	18.56	1.050	1.092
	50/25	Top	0	19100	1900	18.73	18.56	0.447	0.465
	100/0	Back	0	18700	1860	18.73	18.23	0.939	1.054
	100/0	Back	0	18900	1880	18.73	18.58	1.020	1.056
	100/0	Back	0	19100	1900	18.73	18.55	1.060	1.105
100/0	Top	0	18900	1880	18.73	18.58	0.458	0.474	

5.3.5 LTE FDD Band 4

Mode	RB/ RB offset	Position	Distance [mm]	CH	Freq. [MHz]	reported Plimit (dBm)	Measured Plimit (dBm)	Averaged SAR over 1g (W/kg)	
								Measured	Reported
LTE Band 4 (20MHz) QPSK	1/0	Back	0	20050	1720	17.73	16.72	0.653	0.824
	1/0	Back	0	20175	1732.5	17.73	16.77	0.643	0.802
	1/0	Back	0	20300	1745	17.63	16.74	0.661	0.811
	1/0	Top	0	20175	1732.5	17.73	16.77	0.439	0.548
	50/0	Back	0	20050	1720	17.73	16.69	0.633	0.804
	50/25	Back	0	20175	1732.5	17.73	16.74	0.649	0.815
	50/0	Back	0	20300	1745	17.73	16.75	0.654	0.820
	50/0	Top	0	20300	1745	17.73	16.75	0.444	0.556
	100/0	Back	0	20050	1720	17.73	16.66	0.628	0.803
	100/0	Back	0	20175	1732.5	17.73	16.79	0.693	0.860
	100/0	Back	0	20300	1745	17.73	16.72	0.639	0.806
	100/0	Top	0	20175	1732.5	17.73	16.79	0.457	0.567

5.3.6 LTE FDD Band 5

Mode	RB/ RB offset	Position	Distance [mm]	CH	Freq. [MHz]	reported Plimit (dBm)	Measured Plimit (dBm)	Averaged SAR over 1g (W/kg)	
								Measured	Reported
LTE Band 5 (10MHz) QPSK	1/49	Right	0	20450	829	20.73	20.57	0.051	0.053
	25/25	Right	0	20600	844	20.73	20.26	0.053	0.059
	1/49	Back	0	20450	829	20.73	20.57	0.774	0.803
	1/25	Back	0	20525	836.5	20.73	20.24	0.781	0.874
	1/25	Back	0	20600	844	20.73	20.22	0.823	0.926
	1/49	Top	0	20450	829	20.73	20.57	0.620	0.643
	25/25	Back	0	20450	829	20.73	20.20	0.772	0.872
	25/25	Back	0	20525	836.5	20.73	20.16	0.796	0.908
	25/25	Back	0	20600	844	20.73	20.26	0.844	0.940
	25/25	Top	0	20600	844	20.73	20.26	0.655	0.730
	50/0	Back	0	20450	829	20.73	20.11	0.754	0.870
	50/0	Back	0	20525	836.5	20.73	20.17	0.790	0.899
	50/0	Back	0	20600	844	20.73	20.13	0.817	0.938
50/0	Top	0	20525	836.5	20.73	20.17	0.576	0.655	

5.3.7 LTE FDD Band 7

Mode	RB/ RB offset	Position	Distance [mm]	CH	Freq. [MHz]	reported Plimit (dBm)	Measured Plimit (dBm)	Averaged SAR over 1g (W/kg)	
								Measured	Reported
LTE Band 7 (20MHz) QPSK	1/99	Right	0	21350	2560	19.73	19.34	0.178	0.195
	50/0	Right	0	20850	2510	19.73	19.47	0.185	0.196
	1/99	Back	0	21350	2560	19.73	19.34	0.468	0.512
	1/99	Top	0	21350	2560	19.73	19.34	0.425	0.465
	50/0	Back	0	20850	2510	19.73	19.47	0.493	0.523
	50/0	Top	0	20850	2510	19.73	19.47	0.479	0.509

5.3.8 LTE FDD Band 12

Mode	RB/ RB offset	Position	Distance [mm]	CH	Freq. [MHz]	reported Plimit (dBm)	Measured Plimit (dBm)	Averaged SAR over 1g (W/kg)	
								Measured	Reported
LTE Band 12 (10MHz) QPSK	1/49	Right	0	23060	704	22.23	21.60	0.136	0.157
	25/25	Right	0	23060	704	22.23	21.90	0.134	0.145
	50/0	Right	0	23095	707.5	22.23	21.60	0.138	0.160
	1/49	Back	0	23060	704	22.23	21.60	1.030	1.191
	1/25	Back	0	23095	707.5	22.23	21.57	1.060	1.234
	1/25	Back	0	23130	711	22.23	21.47	1.050	1.251
	1/49	Top	0	23060	704	22.23	21.60	0.632	0.731
	25/25	Back	0	23060	704	22.23	21.90	1.050	1.133
	25/25	Back	0	23095	707.5	22.23	21.65	1.060	1.211
	25/0	Back	0	23130	711	22.23	21.54	1.060	1.243
	25/25	Top	0	23060	704	22.23	21.90	0.634	0.684
	50/0	Back	0	23060	704	22.23	21.56	1.030	1.202
	50/0	Back	0	23095	707.5	22.23	21.60	1.050	1.214
	50/0	Back	0	23130	711	22.23	21.59	1.080	1.251
50/0	Top	0	23095	707.5	22.23	21.60	0.637	0.736	

5.3.9 LTE FDD Band 17

Mode	RB/ RB offset	Position	Distance [mm]	CH	Freq. [MHz]	reported Plimit (dBm)	Measured Plimit (dBm)	Averaged SAR over 1g (W/kg)	
								Measured	Reported
LTE Band 17 (10MHz) QPSK	1/0	Right	0	23790	710	22.23	21.98	0.133	0.141
	25/25	Right	0	23780	709	22.23	21.72	0.139	0.156
	1/25	Back	0	23780	709	22.23	21.64	1.070	1.226
	1/0	Back	0	23790	710	22.23	21.98	1.050	1.112
	1/49	Back	0	23800	711	22.23	21.59	1.040	1.205
	1/0	Top	0	23790	710	22.23	21.98	0.611	0.647
	25/25	Back	0	23780	709	22.23	21.72	1.090	1.226
	25/0	Back	0	23790	710	22.23	21.61	1.100	1.269
	25/25	Back	0	23800	711	22.23	21.70	1.080	1.220
	25/25	Top	0	23780	709	22.23	21.72	0.644	0.724
	50/0	Back	0	23780	709	22.23	21.60	1.060	1.225
	50/0	Back	0	23790	710	22.23	21.66	1.090	1.243
50/0	Back	0	23800	711	22.23	21.63	1.080	1.240	

5.4 Summary of SAR Measurement Results

Below table provides the summary listing worst-case *reported* 1gSAR per technology and band. All the worst-case *reported* 1gSAR comply with FCC SAR limit.

Tech.	Band	Channel	RB/ RB offset	Device Position	worst case measured 1gSAR (W/kg)	worst case reported 1gSAR (W/kg)
WCDMA	II	9538	-	Back	0.761	0.858
WCDMA	IV	1312	-	Back	0.844	0.983
WCDMA	V	4233	-	Back	0.909	1.212
LTE	2	19100	100/0	Back	1.060	1.105
LTE	4	20175	100/0	Back	0.693	0.860
LTE	5	20600	25/25	Back	0.844	0.940
LTE	7	20850	50/0	Back	0.493	0.523
LTE	12	23130	50/0	Back	1.080	1.251
LTE	17	23790	25/0	Back	1.10	1.269

Table 8. Worst case *reported* 1gSAR

6. Simultaneous Transmission Analysis

Following current FCC test procedures, 1gSAR measurements were conducted for WLAN and BT at full power to determine SAR_{WLAN} and SAR_{BT} for all configurations. Note no Qualcomm Smart Transmit is implemented in WLAN/BT module.

For WWAN, *reported* 1gSAR values for Back/Top/Right positions from Section 3.3 with Qualcomm Smart Transmit enabled were used for this analysis. For Left position (all bands) and right position (LTE B4, WCDMA B4 and B5) that was not tested based on the exclusion criteria (see Section 4, step 7), estimated 1gSAR value (see Section 6.1) was used.

1gSAR compliance with WWAN+WLAN+BT simultaneous transmission scenarios is demonstrated for various device configurations using below equation:

$$SAR_{total} = \textit{reported} \ 1gSAR_{WWAN} \ (\text{with Smart Transmit enabled}) + SAR_{WLAN} + SAR_{BT} < 1.6 \ W/kg$$

For cases where the above equation is not true, further analysis (Spatial Peak Location SAR Ratio - SPSLR criteria) is conducted using the procedures described in KDB447498 D01 for compliance demonstration in simultaneous transmission scenarios.

Simultaneous Transmission Scenarios:

NO.	Simultaneous Transmit Configurations	Body
1	UMTS + 2.4GHz WLAN Main / 2.4GHz WLAN Aux / 2.4GHz MIMO	YES
2	UMTS + 5GHz WLAN Main / 5GHz WLAN Aux / 5GHz MIMO	YES
3	UMTS + BT	YES
4	UMTS + 2.4/5GHz WLAN Main + BT	YES
5	LTE + 2.4GHz WLAN Main / 2.4GHz WLAN Aux / 2.4GHz MIMO	YES
6	LTE + 5GHz WLAN Main / 5GHz WLAN Aux / 5GHz MIMO	YES
7	LTE + BT	YES
8	LTE + 2.4/5GHz WLAN Main + BT	YES

Note :

- 1) WWAN and WLAN may transmit simultaneously.
- 2) WWAN and BT may transmit simultaneously.
- 3) Bluetooth and WLAN Aux share the same antenna path, but they can't transmit simultaneously.
- 4) Bluetooth can transmit with WLAN Main simultaneously.
- 5) WWAN Main transmits and WWAN Aux does not.

6.1 Estimated SAR calculation

According to KDB447498 D01 – When standalone SAR test exclusion applies to an antenna that transmits simultaneously with other antennas, the standalone SAR for WWAN must be estimated according to following to determine simultaneous transmission SAR test exclusion:

$$Estimated\ SAR = \frac{Reported\ P_{limit}\ (mW)}{Min.\ test\ separation\ distance(mm)} \times \frac{\sqrt{f(GHz)}}{7.5}$$

If the minimum test separation distance is < 5mm, a distance of 5mm is used for estimated SAR calculation. When the test separation distance is >50mm, the 0.4W/kg is used for SAR-1g.

Mode / Band	Test Position	Tune up power	Test Separation Distance(mm)	Estimated SAR(W/kg)
WWAN All	Left	-	> 50mm	0.4
WCDMA B4	Right	18.2dBm	30mm	0.39
WCDMA B5	Right	19.7dBm	30mm	0.38
LTE B4	Right	17.73dBm	30mm	0.35
WLAN Main 2.4 / 5G	Left / Right	-	> 50mm	0.4
WLAN Aux 2.4 / 5G	Right	-	> 50mm	0.4
BT	Right	-	> 50mm	0.4

In order to evaluate the simultaneous transmission SAR analysis based on the SAR data from both SAR reports (Report No.:EN201740008 (this report) & FCC ID: PD98265D2 (attached in Appendix F)), the following shown the worst values of WLAN SAR report in 2.4GHz and 5GHz and Bluetooth respectively:

Mode	Antenna	Position	Distance (mm)	CH	Freq. (MHz)	Max. Rated Avg. Power + Max. Tolerance (dBm)	Measured Avg. Power (dBm)	Scaling	Averaged SAR over 1g (W/kg)	
									Measured	Reported
WLAN802.11b	Main	Back side	0	11	2462	15.00	14.96	0.93%	0.861	0.869
	Main	Top side	0	6	2437	15.00	15.00	0.00%	0.349	0.349
	Aux	Back side	0	11	2462	15.00	14.86	3.28%	0.978	1.010
	Aux	Top side	0	11	2462	15.00	14.86	3.28%	0.591	0.610
	Aux	Left side	0	6	2437	15.00	15.00	0.00%	0.237	0.237
Bluetooth (GFSK)	Aux	Back side	0	39	2441	12.00	11.50	12.20%	0.392	0.440
	Aux	Top side	0	39	2441	12.00	11.50	12.20%	0.232	0.260
	Aux	Left side	0	39	2441	12.00	11.50	12.20%	0.095	0.107
WLAN802.11a 5.3G	Main	Back side	0	56	5280	13.50	13.46	0.93%	0.886	0.894
WLAN802.11a 5.6G	Aux	Back side	0	116	5580	13.50	13.50	0.00%	0.806	0.806
	Aux	Top side	0	124	5620	13.50	13.50	0.00%	1.230	1.230
WLAN802.11a 5.8G	Main	Top side	0	165	5825	13.50	13.48	0.46%	1.010	1.015
	Aux	Left side	0	157	5785	13.50	13.50	0.00%	0.222	0.222

6.2 Simultaneous Transmission Combination

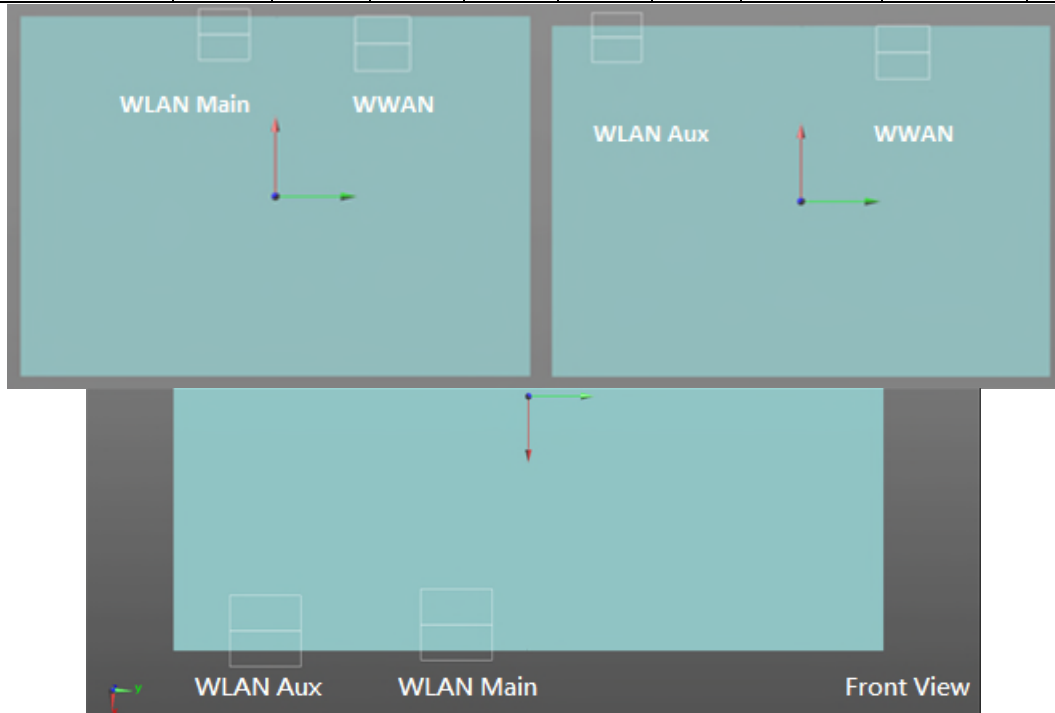
Transmission Combination

Sum of the SAR for WCDMA Band II + WLAN + Bluetooth

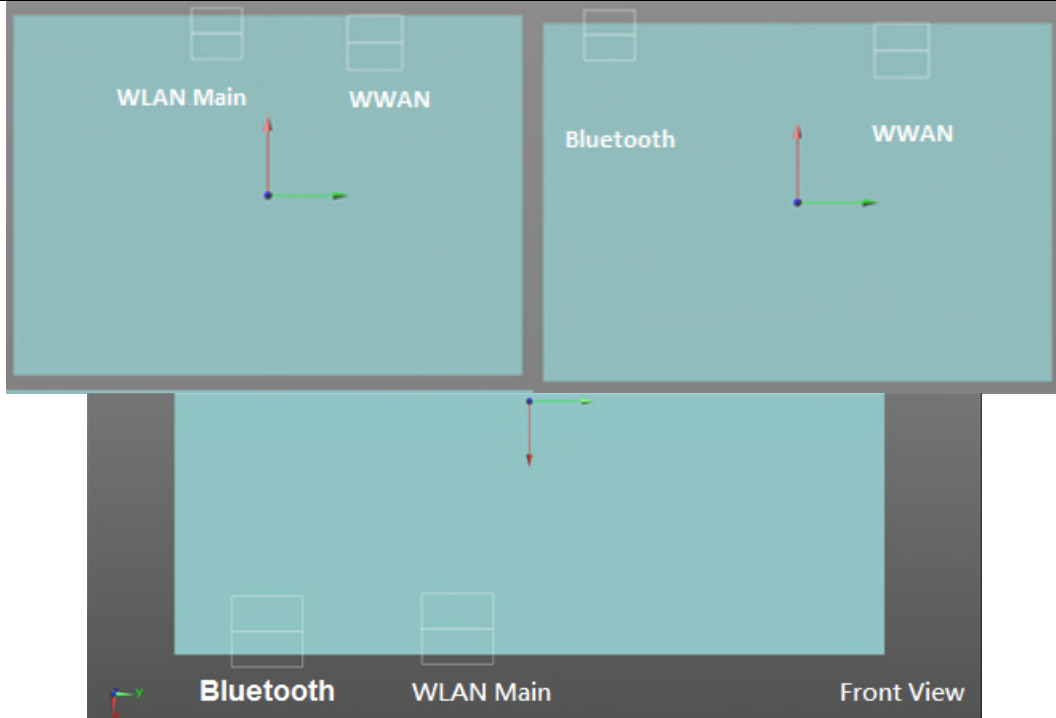
No.	Test Position	Simultaneous Transmission Scenario					Bluetooth	Σ SAR 1g (W/kg)	SPLSR (Yes/No)	Item
		WCDMA Band II	2.4GHz		5GHz					
			Main	Aux	Main	Aux				
1	Back side	0.858*	0.869	1.010	-	-	-	2.737	Yes	1
		0.858	0.869					1.727	0.025	
		0.858		1.010				1.868	0.014	
			0.869	1.010				1.879	0.030	
		0.858	0.869	-	-	-	0.440	2.167	Yes	2
		0.858	0.869					1.727	0.025	
		0.858					0.440	1.298	0.008	
			0.869				0.440	1.301	0.018	
		0.858	-	-	0.894	-	0.440	2.192	Yes	3
		0.858			0.894			1.752	0.024	
		0.858					0.440	1.298	0.008	
					0.894		0.440	1.334	0.019	
	0.858	-	-	0.894	0.806	-	2.558	Yes	4	
	0.858			0.894			1.752	0.024		
	0.858				0.806		1.664	0.012		
				0.894	0.806		1.700	0.028		
	Top side	0.473	0.349	0.610	-	-	-	1.432	No	-
		0.473	0.349	-	-	-	0.260	1.082	No	
		0.473	-	-	1.015	-	0.260	1.748	Yes	5
		0.473			1.015			1.488	0.035	
		0.473					0.260	0.733	0.004	
					1.015		0.260	1.275	0.017	
		0.473	-	-	1.015	1.230	-	2.718	Yes	6
		0.473			1.015			1.488	0.035	
0.473				1.230		1.703	0.015			
			1.015	1.230		2.245	0.036			
Right side	0.090	0.400	0.400	-	-	-	0.89	No	-	
	0.090	0.400	-	-	-	0.400	0.89	No	-	
	0.090	-	-	0.400	-	0.400	0.89	No	-	
	0.090	-	-	0.400	0.400	-	0.89	No	-	
Left side	0.400	0.400	0.237	-	-	-	1.037	No	-	
	0.400	0.400	-	-	-	0.107	0.907	No	-	
	0.400	-	-	0.400	-	0.107	0.907	No	-	
	0.400	-	-	0.400	0.222	-	1.022	No	-	

*All supported simultaneous transmissions for each test position are listed in blue-colored rows. As per KDB 447498, when the sum of SAR for all active transmitters is larger than the limit, SAR test exclusion is determined by the SAR to peak location separation ratio (SPLSR), by considering one antenna pair at a time (as shown in white rows) to qualify for 1-g SAR test exclusion.

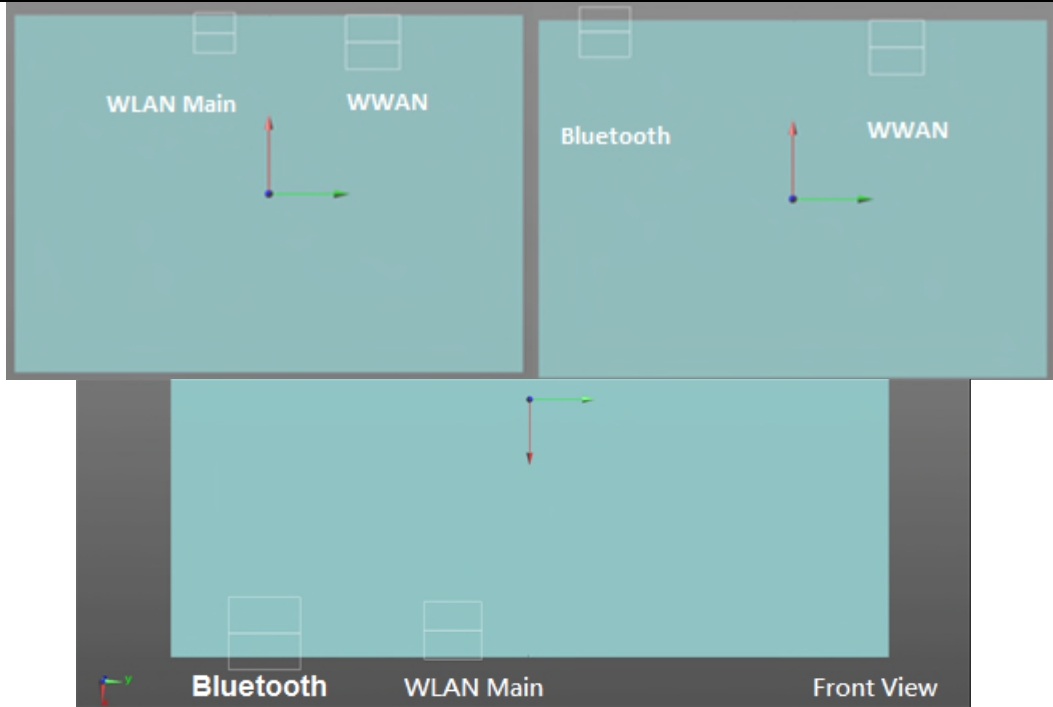
Simultaneous Transmission Scenario				WWAN+Main+Aux						
Item	Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (cm)	SPLSR	Result
				x	y	z				
1	WCDMA Band II	Back side	0.858	9.37	6.15	-0.13	1.727	8.90	0.025	SPLSR ≤ 0.04, Not required
	2.4GHz Main		0.869	9.70	-2.74	-0.24				
	WCDMA Band II	Back side	0.858	9.37	6.15	-0.13	1.868	17.588	0.014	SPLSR ≤ 0.04, Not required
	2.4GHz Aux		1.010	10.06	-11.42	-0.17				
	2.4GHz Main	Back side	0.869	9.70	-2.74	-0.24	1.879	8.688	0.030	SPLSR ≤ 0.04, Not required
	2.4GHz Aux		1.010	10.06	-11.42	-0.17				



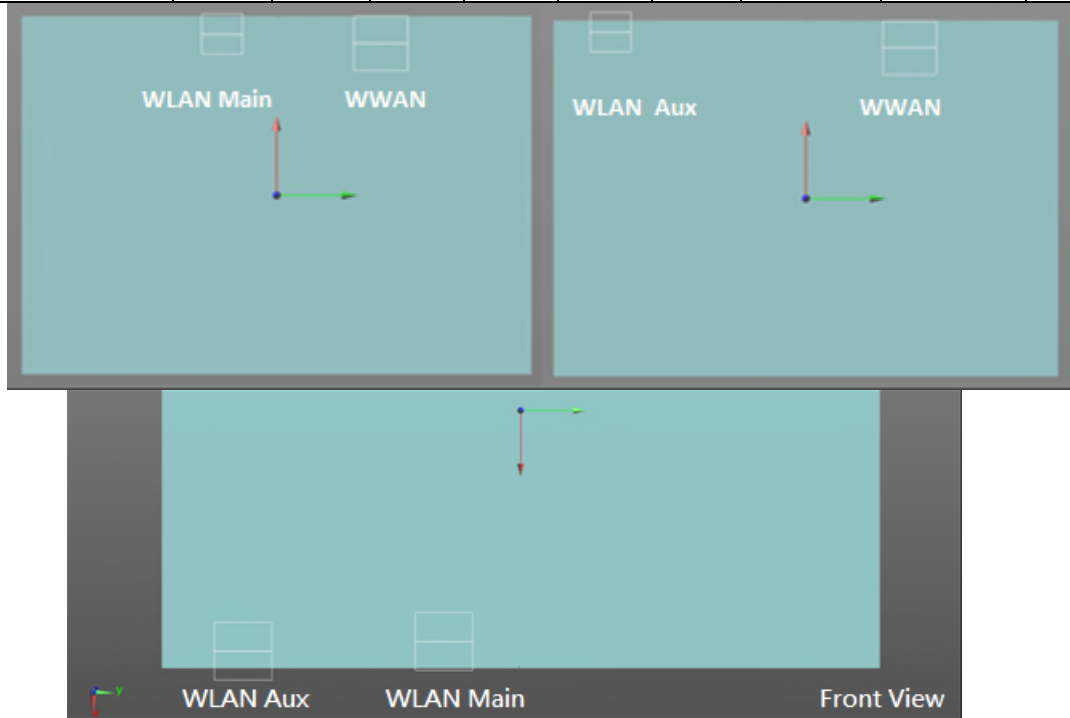
Simultaneous Transmission Scenario				WWAN+Main+BT						
Item	Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (cm)	SPLSR	Result
				x	y	z				
2	WCDMA Band II	Back side	0.858	9.37	6.15	-0.13	1.727	8.90	0.025	SPLSR ≤ 0.04, Not required
	2.4GHz Main		0.869	9.70	-2.74	-0.24				
	WCDMA Band II	Back side	0.858	9.37	6.15	-0.13	1.298	17.34	0.008	SPLSR ≤ 0.04, Not required
	Bluetooth		0.440	9.82	-11.18	-0.19				
	2.4GHz Main	Back side	0.869	9.70	-2.74	-0.24	1.309	8.44	0.018	SPLSR ≤ 0.04, Not required
	Bluetooth		0.440	9.82	-11.18	-0.19				



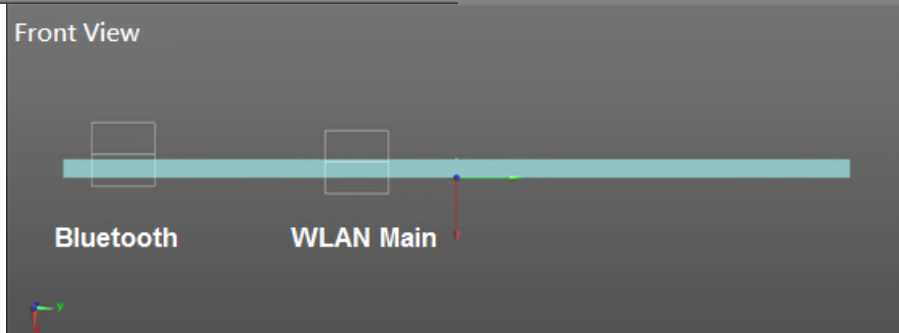
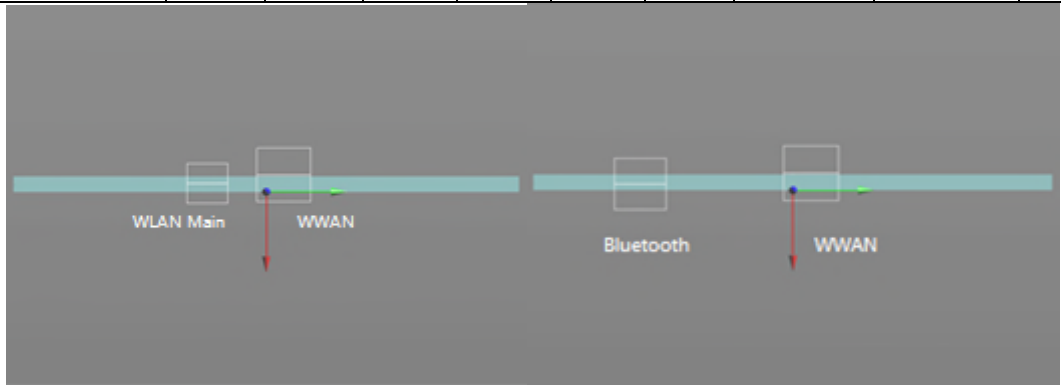
Simultaneous Transmission Scenario				WWAN+Main+BT						
Item	Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (cm)	SPLSR	Result
				x	y	z				
3	WCDMA Band II	Back side	0.858	9.37	6.15	-0.13	1.752	9.43	0.024	SPLSR ≤ 0.04, Not required
	5GHz Main		0.894	9.52	-3.28	-0.2				
	WCDMA Band II	Back side	0.858	9.37	6.15	-0.13	1.298	17.34	0.008	SPLSR ≤ 0.04, Not required
	Bluetooth		0.440	9.82	-11.18	-0.19				
	5GHz Main	Back side	0.894	9.52	-3.28	-0.2	1.334	7.906	0.019	SPLSR ≤ 0.04, Not required
	Bluetooth		0.440	9.82	-11.18	-0.19				



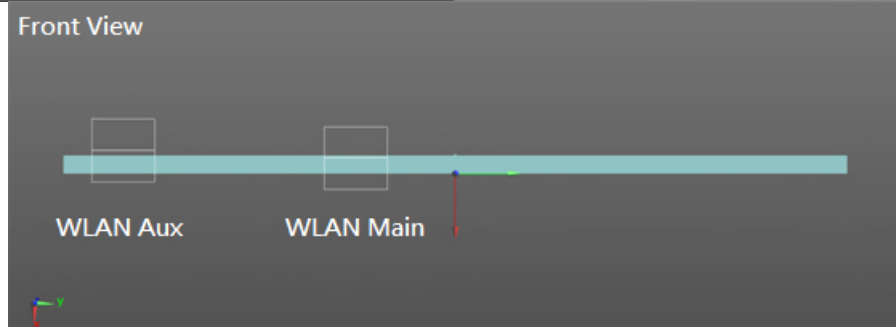
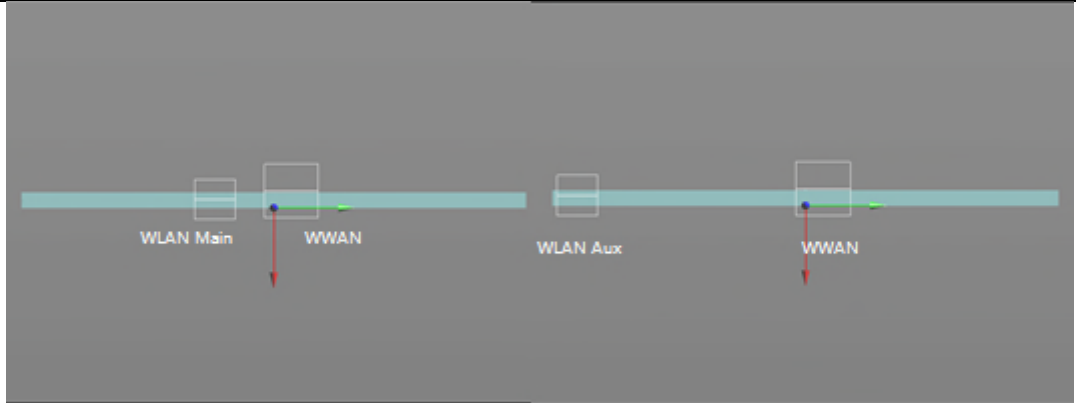
Simultaneous Transmission Scenario				WWAN+Main+Aux						
Item	Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (cm)	SPLSR	Result
				x	y	z				
4	WCDMA Band II	Back side	0.858	9.37	6.15	-0.13	1.752	9.43	0.024	SPLSR ≤ 0.04, Not required
	5GHz Main		0.894	9.52	-3.28	-0.2				
	WCDMA Band II	Back side	0.858	9.37	6.15	-0.13	1.664	17.59	0.012	SPLSR ≤ 0.04, Not required
	5GHz Aux		0.806	9.68	-11.44	-0.21				
	5GHz Main	Back side	0.894	9.52	-3.28	-0.2	1.7	8.162	0.028	SPLSR ≤ 0.04, Not required
	5GHz Aux		0.806	9.68	-11.44	-0.21				



Simultaneous Transmission Scenario				WWAN+Main+BT						
Item	Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (cm)	SPLSR	Result
				x	y	z				
5	WCDMA Band II	Top side	0.473	-1.16	1.21	-0.24	1.488	5.20	0.035	SPLSR ≤ 0.04, Not required
	5GHz Main		1.015	-0.60	-3.96	-0.38				
	WCDMA Band II	Top side	0.473	-1.16	1.21	-0.24	0.733	13.70	0.004	SPLSR ≤ 0.04, Not required
	Bluetooth		0.260	-0.70	-12.48	-0.35				
	5GHz Main	Top side	1.015	-0.60	-3.96	-0.38	1.275	8.52	0.017	SPLSR ≤ 0.04, Not required
	Bluetooth		0.260	-0.70	-12.48	-0.35				



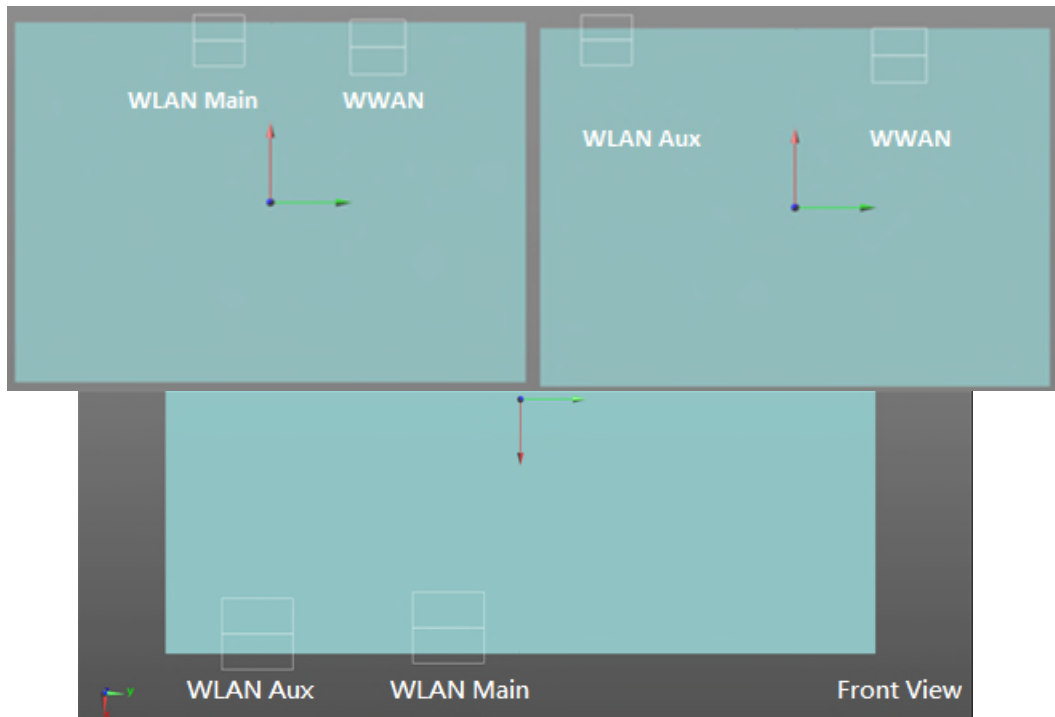
Simultaneous Transmission Scenario				WWAN+Main+Aux						
Item	Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (cm)	SPLSR	Result
				x	y	z				
6	WCDMA Band II	Top side	0.473	-1.16	1.21	-0.24	1.488	5.20	0.035	SPLSR ≤ 0.04, Not required
	5GHz Main		1.015	-0.60	-3.96	-0.38				
	WCDMA Band II	Top side	0.473	-1.16	1.21	-0.24	1.703	14.48	0.015	SPLSR ≤ 0.04, Not required
	5GHz Aux		1.230	-0.74	-13.26	-0.38				
	5GHz Main	Top side	1.015	-0.60	-3.96	-0.38	2.245	9.30	0.036	SPLSR ≤ 0.04, Not required
	5GHz Aux		1.230	-0.74	-13.26	-0.38				



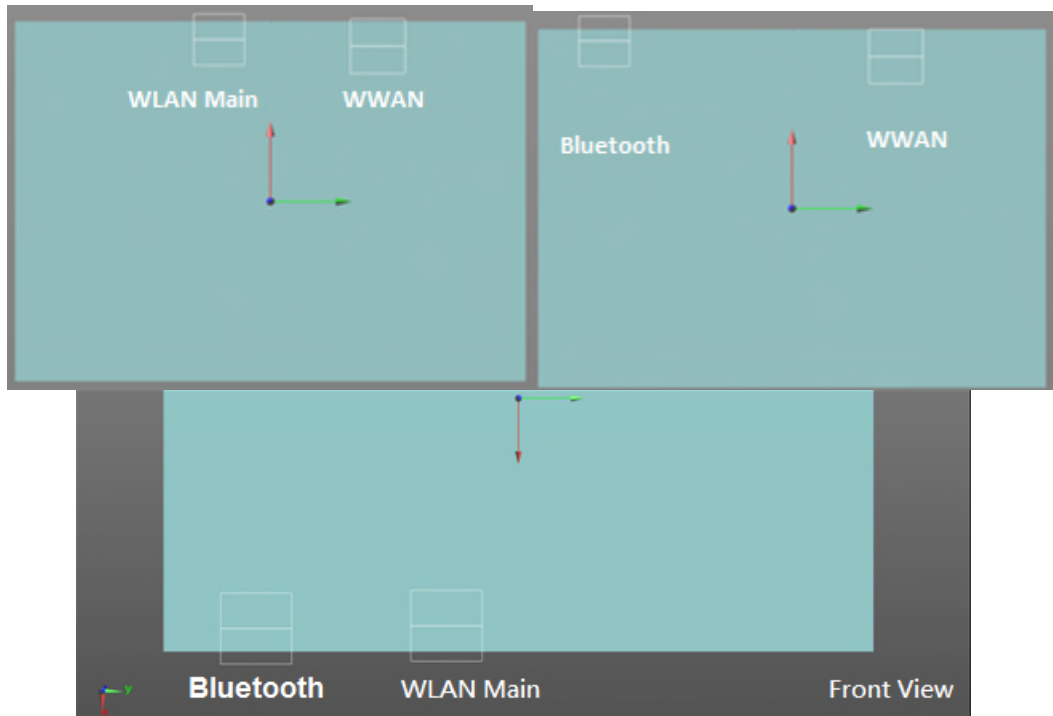
Sum of the SAR for WCDMA Band IV + WLAN + Bluetooth

No.	Test Position	Simultaneous Transmission Scenario						Σ SAR 1g (W/kg)	SPLSR (Yes/No)	Item
		WCDMA Band IV	2.4GHz		5GHz		Bluetooth			
			Main	Aux	Main	Aux				
2	Back side	0.983	0.869	1.010	-	-	-	2.862	Yes	7
		0.983	0.869					1.852	0.027	
		0.983		1.010				1.993	0.016	
			0.869	1.010				1.879	0.030	
		0.983	0.869	-	-	-	0.440	2.292	Yes	8
		0.983	0.869					1.852	0.027	
		0.983					0.440	1.423	0.009	
			0.869				0.440	1.309	0.018	
		0.983	-	-	0.894	-	0.440	2.317	Yes	9
		0.983			0.894			1.877	0.026	
		0.983					0.440	1.423	0.009	
					0.894		0.440	1.334	0.019	
	0.983	-	-	0.894	0.806	-	2.683	Yes	10	
	0.983			0.894			1.877	0.026		
	0.983				0.806		1.789	0.013		
				0.894	0.806		1.700	0.028		
	Top side	0.541	0.349	0.610	-	-	-	1.500	No	-
		0.541	0.349	-	-	-	0.260	1.150	No	-
		0.541	-	-	1.015	-	0.260	1.816	Yes	11
		0.541			1.015			1.556	0.037	
		0.541					0.260	0.801	0.005	
					1.015		0.260	1.275	0.017	
		0.541	-	-	1.015	1.230	-	2.786	Yes	12
		0.541			1.015			1.556	0.037	
0.541				1.230		1.771	0.016			
			1.015	1.230		2.245	0.036			
Right side	0.39	0.400	0.400	-	-	-	1.19	No	-	
	0.39	0.400	-	-	-	0.400	1.19	No	-	
	0.39	-	-	0.400	-	0.400	1.19	No	-	
	0.39	-	-	0.400	0.400	-	1.19	No	-	
Left side	0.400	0.400	0.237	-	-	-	1.037	No	-	
	0.400	0.400	-	-	-	0.107	0.907	No	-	
	0.400	-	-	0.400	-	0.107	0.907	No	-	
	0.400	-	-	0.400	0.222	-	1.022	No	-	

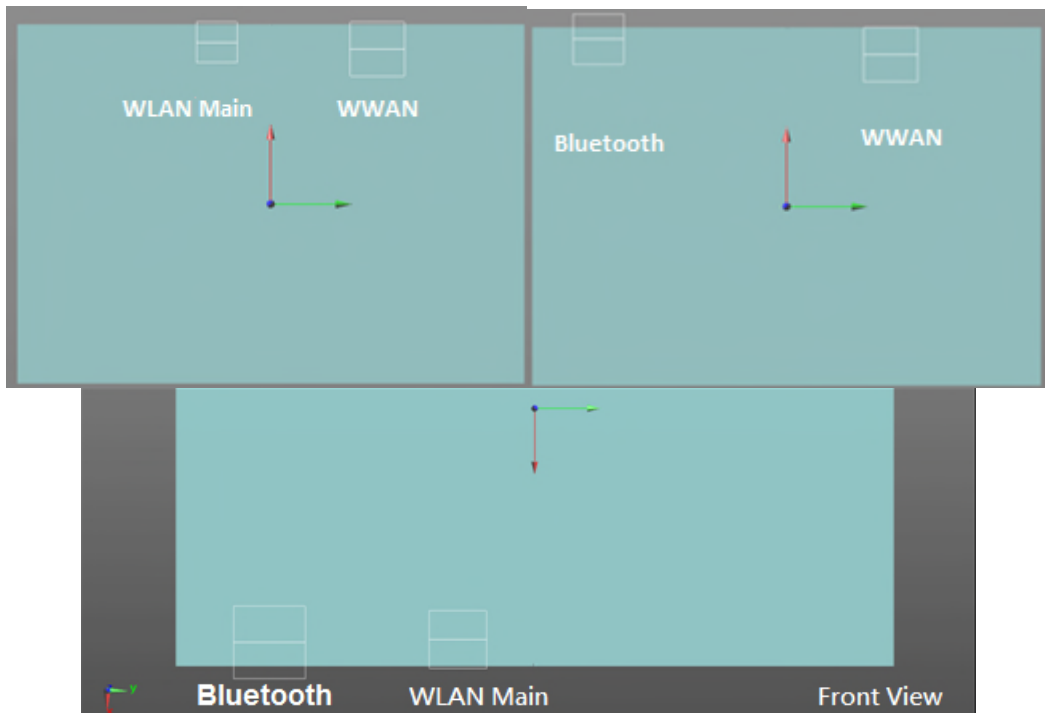
Simultaneous Transmission Scenario				WWAN+Main+Aux						
Item	Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (cm)	SPLSR	Result
				x	y	z				
7	WCDMA Band IV	Back side	0.983	9.59	6.37	-0.11	1.852	9.11	0.027	SPLSR ≤ 0.04, Not required
	2.4GHz Main		0.869	9.70	-2.74	-0.24				
	WCDMA Band IV	Back side	0.983	9.59	6.37	-0.11	1.993	17.80	0.016	SPLSR ≤ 0.04, Not required
	2.4GHz Aux		1.010	10.06	-11.42	-0.17				
	2.4GHz Main	Back side	0.869	9.70	-2.74	-0.24	1.879	8.688	0.030	SPLSR ≤ 0.04, Not required
	2.4GHz Aux		1.010	10.06	-11.42	-0.17				



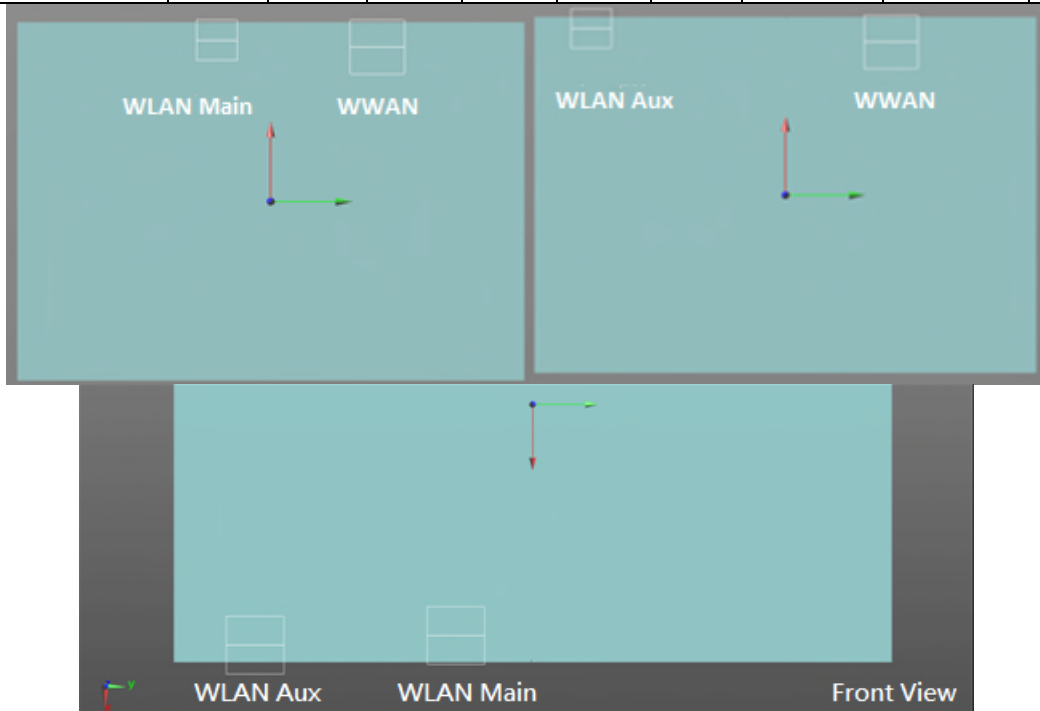
Simultaneous Transmission Scenario				WWAN+Main+BT						
Item	Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (cm)	SPLSR	Result
				x	y	z				
8	WCDMA Band IV	Back side	0.983	9.36	6.46	-0.20	1.852	9.20	0.027	SPLSR ≤ 0.04, Not required
	2.4GHz Main		0.869	9.70	-2.74	-0.24				
	WCDMA Band IV	Back side	0.983	9.36	6.46	-0.20	1.423	17.65	0.009	SPLSR ≤ 0.04, Not required
	Bluetooth		0.440	9.82	-11.18	-0.19				
	2.4GHz Main	Back side	0.869	9.70	-2.74	-0.24	1.309	8.44	0.018	SPLSR ≤ 0.04, Not required
	Bluetooth		0.440	9.82	-11.18	-0.19				



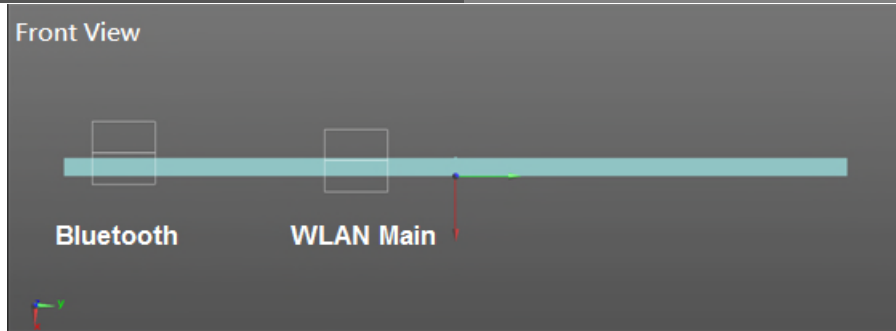
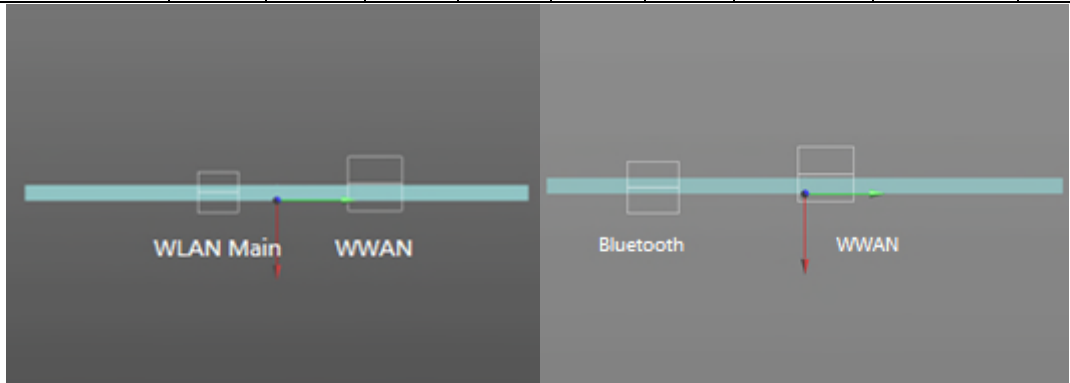
Simultaneous Transmission Scenario				WWAN+Main+BT						
Item	Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (cm)	SPLSR	Result
				x	y	z				
9	WCDMA Band IV	Back side	0.983	9.36	6.46	-0.20	1.877	9.74	0.026	SPLSR ≤ 0.04, Not required
	5GHz Main		0.894	9.52	-3.28	-0.20				
	WCDMA Band IV	Back side	0.983	9.36	6.46	-0.20	1.423	17.65	0.009	SPLSR ≤ 0.04, Not required
	Bluetooth		0.440	9.82	-11.18	-0.19				
	5GHz Main	Back side	0.894	9.52	-3.28	-0.2	1.334	7.906	0.019	SPLSR ≤ 0.04, Not required
	Bluetooth		0.440	9.82	-11.18	-0.19				



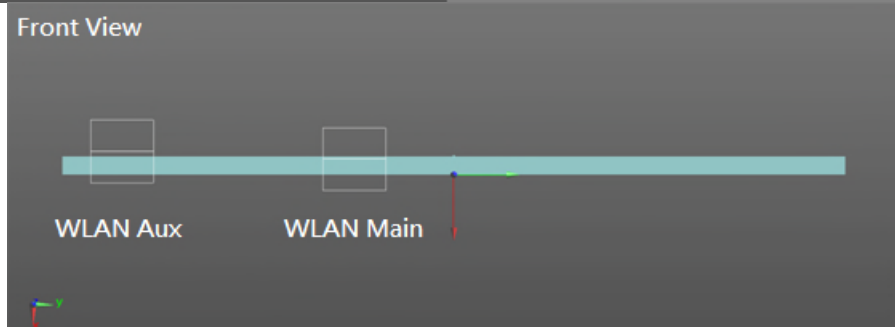
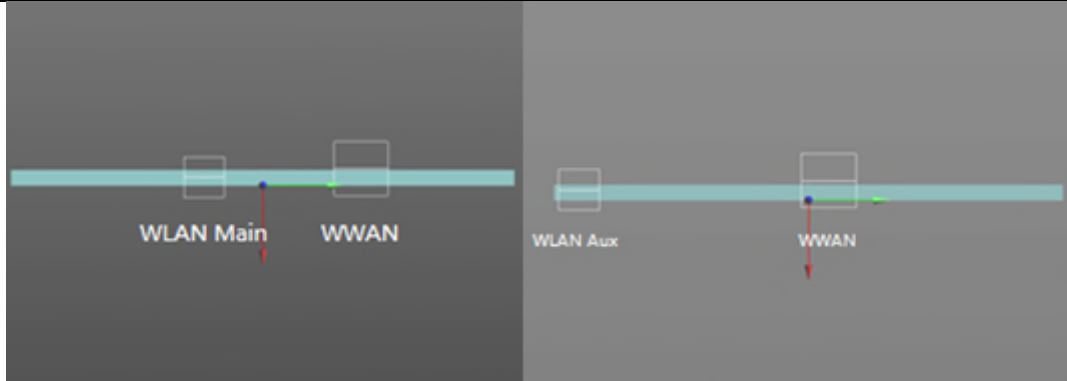
Simultaneous Transmission Scenario				WWAN+Main+Aux						
Item	Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (cm)	SPLSR	Result
				x	y	z				
10	WCDMA Band IV	Back side	0.983	9.36	6.46	-0.20	1.877	9.74	0.026	SPLSR ≤ 0.04, Not required
	5GHz Main		0.894	9.52	-3.28	-0.20				
	WCDMA Band IV	Back side	0.983	9.36	6.46	-0.20	1.789	17.90	0.013	SPLSR ≤ 0.04, Not required
	5GHz Aux		0.806	9.68	-11.44	-0.21				
	5GHz Main	Back side	0.894	9.52	-3.28	-0.2	1.7	8.162	0.028	SPLSR ≤ 0.04, Not required
	5GHz Aux		0.806	9.68	-11.44	-0.21				



Simultaneous Transmission Scenario				WWAN+Main+BT						
Item	Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (cm)	SPLSR	Result
				x	y	z				
11	WCDMA Band IV	Top side	0.541	-1.15	1.20	-0.24	1.556	5.19	0.037	SPLSR ≤ 0.04, Not required
	5GHz Main		1.015	-0.60	-3.96	-0.38				
	WCDMA Band IV	Top side	0.541	-1.15	1.20	-0.24	0.801	13.69	0.005	SPLSR ≤ 0.04, Not required
	Bluetooth		0.260	-0.70	-12.48	-0.35				
	5GHz Main	Top side	1.015	-0.60	-3.96	-0.38	1.275	8.52	0.017	SPLSR ≤ 0.04, Not required
	Bluetooth		0.260	-0.70	-12.48	-0.35				



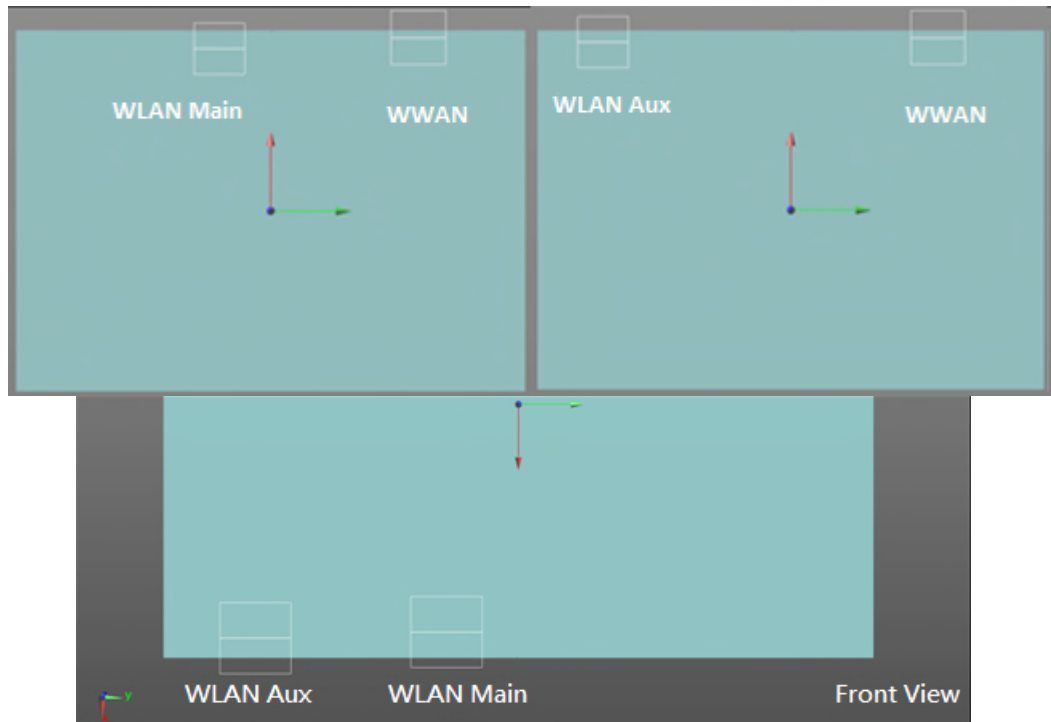
Simultaneous Transmission Scenario				WWAN+Main+Aux						
Item	Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (cm)	SPLSR	Result
				x	y	z				
12	WCDMA Band IV	Top side	0.541	-1.15	1.20	-0.24	1.556	5.19	0.037	SPLSR ≤ 0.04, Not required
	5GHz Main		1.015	-0.60	-3.96	-0.38				
	WCDMA Band IV	Top side	0.541	-1.15	1.20	-0.24	1.771	14.47	0.016	SPLSR ≤ 0.04, Not required
	5GHz Aux		1.230	-0.74	-13.26	-0.38				
	5GHz Main	Top side	1.015	-0.60	-3.96	-0.38	2.245	9.30	0.036	SPLSR ≤ 0.04, Not required
	5GHz Aux		1.230	-0.74	-13.26	-0.38				



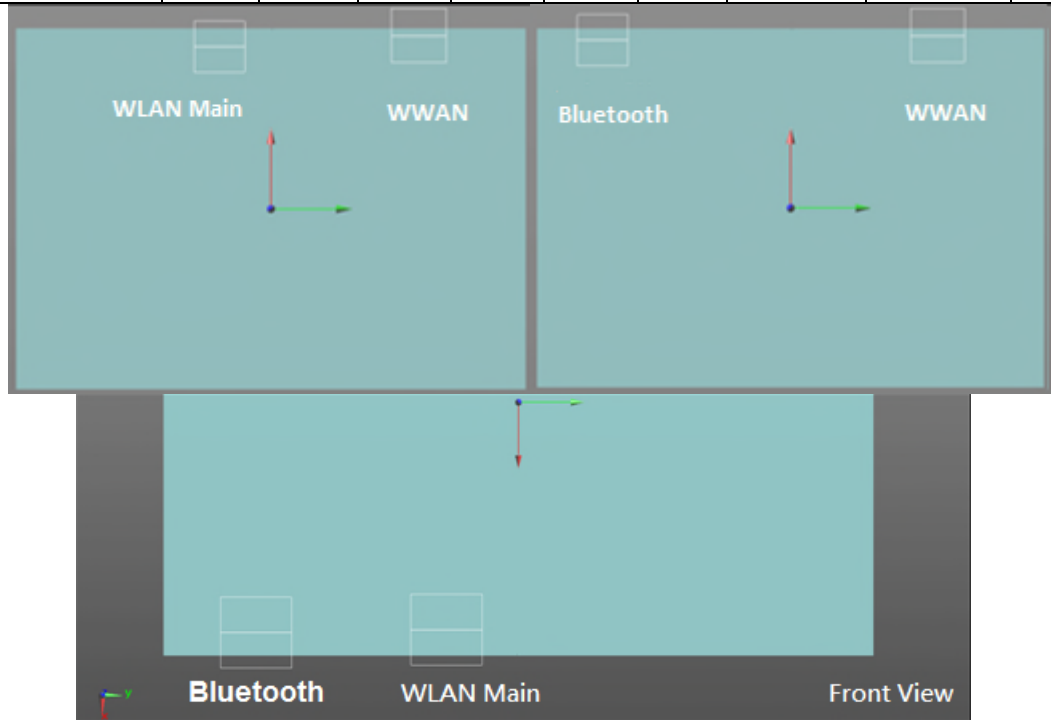
Sum of the SAR for WCDMA Band V + WLAN + Bluetooth

No.	Test Position	Simultaneous Transmission Scenario					Σ SAR 1g (W/kg)	SPLSR (Yes/No)	Item		
		WCDMA Band V	2.4GHz		5GHz					Bluetooth	
			Main	Aux	Main	Aux					
3	Back side	1.212	0.869	1.010	-	-	-	3.091	Yes	13	
		1.212	0.869					2.081	0.025		
		1.212		1.010				2.222	0.016		
			0.869	1.010				1.879	0.030		
		1.212	0.869	-	-	-	0.440	2.521	Yes	14	
		1.212	0.869					2.081	0.025		
		1.212					0.440	1.652	0.010		
			0.869				0.440	1.309	0.018		
		1.212	-	-	0.894	-	0.440	2.546	Yes	15	
		1.212			0.894			2.106	0.024		
		1.212					0.440	1.652	0.010		
					0.894		0.440	1.334	0.019		
	1.212	-	-	0.894	0.806	-	2.912	Yes	16		
	1.212			0.894			2.106	0.024			
	1.212				0.806		2.018	0.014			
				0.894	0.806		1.700	0.028			
	Top side		0.775	0.349	0.610	-	-	-	1.734	Yes	17
			0.775	0.349					1.124	0.009	
			0.775		0.610				1.385	0.008	
				0.349	0.610				0.959	0.011	
		0.775	0.349	-	-	-	0.260	1.384	No	18	
		0.775	-	-	1.015	-	0.260	2.05	Yes		
		0.775			1.015			1.790	0.020		
		0.775					0.260	1.035	0.005		
				1.015		0.260	1.275	0.017			
0.775		-	-	1.015	1.230	-	3.02	Yes			
0.775			1.015			1.790	0.020	19			
0.775				1.230		2.005	0.013				
			1.015	1.230		2.245	0.036				
Right side		0.38	0.400	0.400	-	-	-	1.18	No	-	
		0.38	0.400	-	-	-	0.400	1.18	No	-	
		0.38	-	-	0.400	-	0.400	1.18	No	-	
		0.38	-	-	0.400	0.400	-	1.18	No	-	
Left side		0.400	0.400	0.237	-	-	-	1.037	No	-	
		0.400	0.400	-	-	-	0.107	0.907	No	-	
		0.400	-	-	0.400	-	0.107	0.907	No	-	
		0.400	-	-	0.400	0.222	-	1.022	No	-	

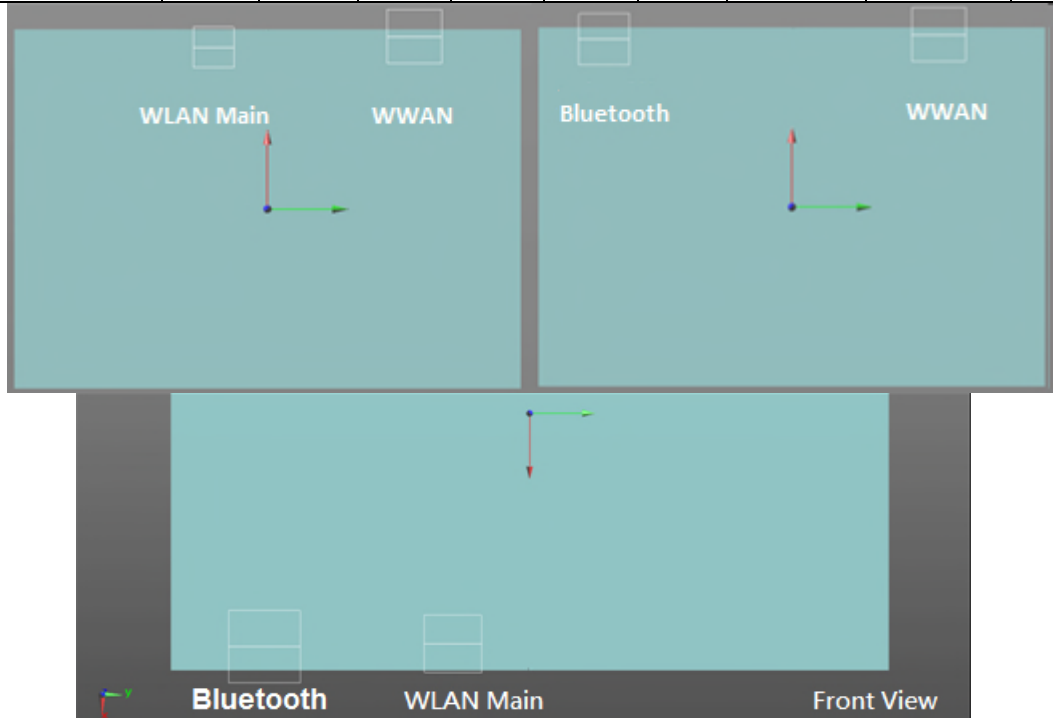
Simultaneous Transmission Scenario				WWAN+Main+Aux						
Item	Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (cm)	SPLSR	Result
				x	y	z				
13	WCDMA Band V	Back side	1.212	10.09	9.02	-0.22	2.081	11.77	0.025	SPLSR ≤ 0.04, Not required
	2.4GHz Main		0.869	9.70	-2.74	-0.24				
	WCDMA Band V	Back side	1.212	10.09	9.02	-0.22	2.222	20.44	0.016	SPLSR ≤ 0.04, Not required
	2.4GHz Aux		1.010	10.06	-11.42	-0.17				
	2.4GHz Main	Back side	0.869	9.70	-2.74	-0.24	1.879	8.688	0.030	SPLSR ≤ 0.04, Not required
	2.4GHz Aux		1.010	10.06	-11.42	-0.17				



Simultaneous Transmission Scenario				WWAN+Main+BT						
Item	Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (cm)	SPLSR	Result
				x	y	z				
14	WCDMA Band V	Back side	1.212	10.09	9.02	-0.22	2.081	11.77	0.025	SPLSR ≤ 0.04, Not required
	2.4GHz Main		0.869	9.70	-2.74	-0.24				
	WCDMA Band V	Back side	1.212	10.09	9.02	-0.22	1.652	20.20	0.010	SPLSR ≤ 0.04, Not required
	Bluetooth		0.440	9.82	-11.18	-0.19				
	2.4GHz Main	Back side	0.869	9.70	-2.74	-0.24	1.309	8.44	0.018	SPLSR ≤ 0.04, Not required
	Bluetooth		0.440	9.82	-11.18	-0.19				



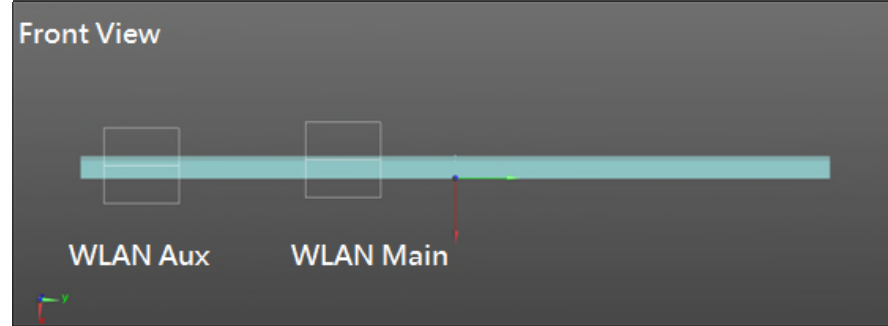
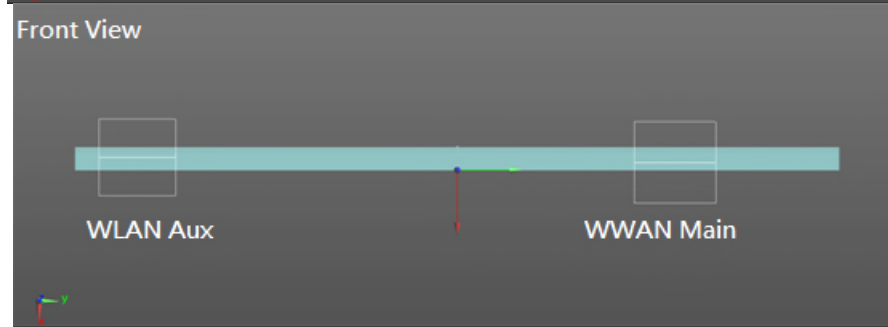
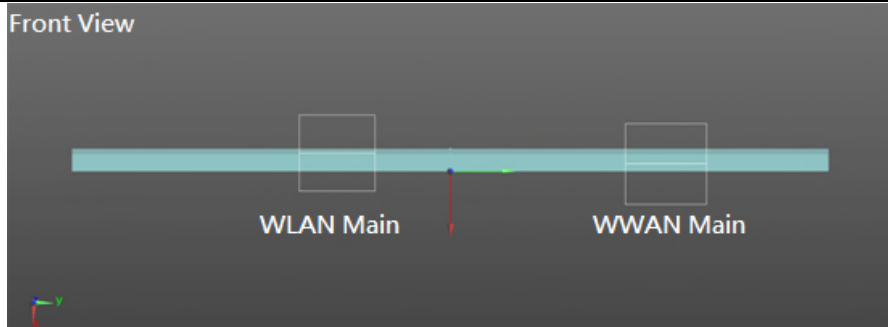
Simultaneous Transmission Scenario				WWAN+Main+BT						
Item	Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (cm)	SPLSR	Result
				x	y	z				
15	WCDMA Band V	Back side	1.212	10.09	9.02	-0.22	2.106	12.31	0.024	SPLSR ≤ 0.04, Not required
	5GHz Main		0.894	9.52	-3.28	-0.20				
	WCDMA Band V	Back side	1.212	10.09	9.02	-0.22	1.652	20.20	0.010	SPLSR ≤ 0.04, Not required
	Bluetooth		0.440	9.82	-11.18	-0.19				
	5GHz Main	Back side	0.894	9.52	-3.28	-0.2	1.334	7.906	0.019	SPLSR ≤ 0.04, Not required
	Bluetooth		0.440	9.82	-11.18	-0.19				



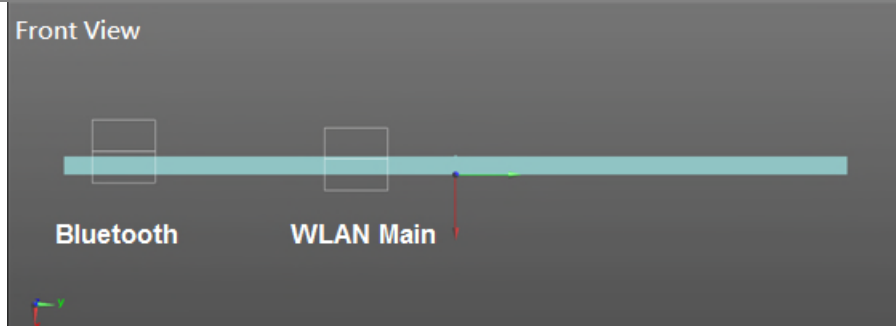
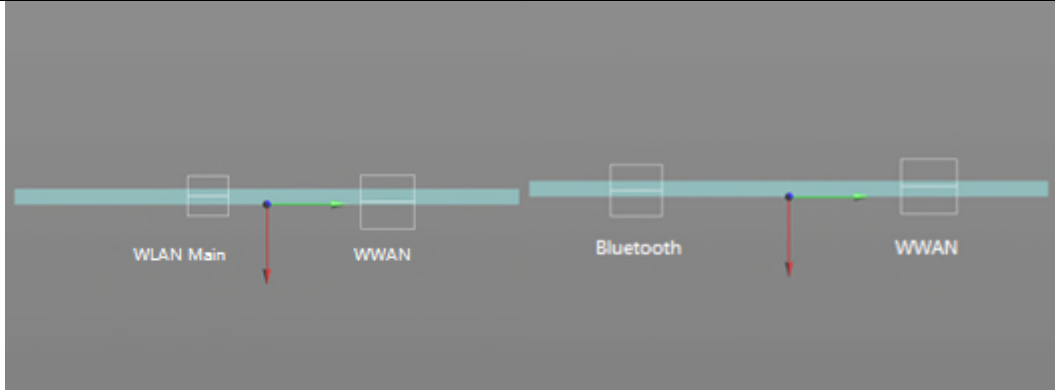
Simultaneous Transmission Scenario				WWAN+Main+Aux						
Item	Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (cm)	SPLSR	Result
				x	y	z				
16	WCDMA Band V	Back side	1.212	10.09	9.02	-0.22	2.106	12.21	0.024	SPLSR ≤ 0.04, Not required
	5GHz Main		0.894	9.52	-3.28	-0.20				
	WCDMA Band V	Back side	1.212	10.09	9.02	-0.22	2.018	20.46	0.014	SPLSR ≤ 0.04, Not required
	5GHz Aux		0.806	9.68	-11.44	-0.21				
	5GHz Main	Back side	0.894	9.52	-3.28	-0.2	1.7	8.162	0.028	SPLSR ≤ 0.04, Not required
	5GHz Aux		0.806	9.68	-11.44	-0.21				



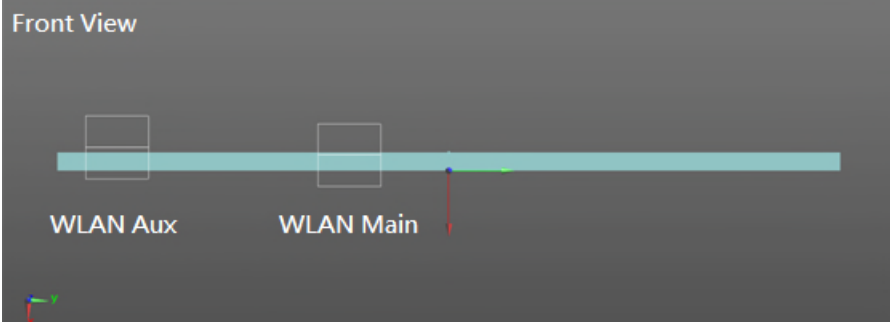
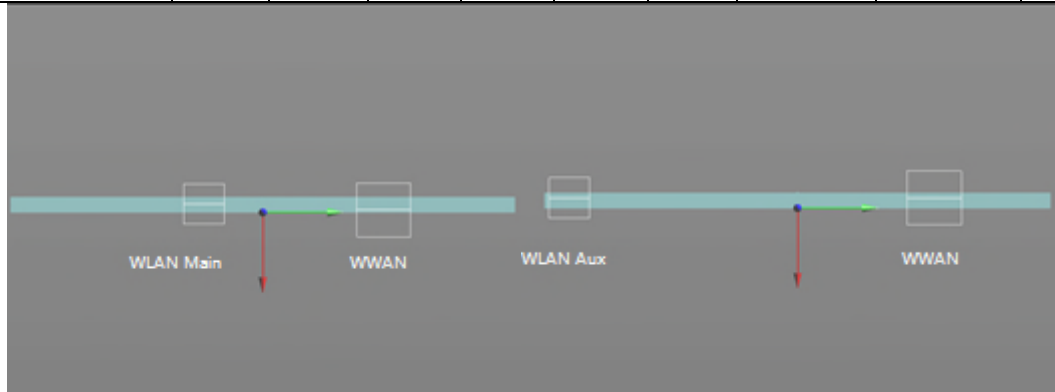
Simultaneous Transmission Scenario				WWAN+Main+BT						
Item	Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (cm)	SPLSR	Result
				x	y	z				
17	WCDMA Band V	Top side	0.775	-0.46	8.55	-0.487	1.124	12.73	0.009	SPLSR ≤ 0.04, Not required
	2.4GHz Main		0.349	0.74	-4.18	-0.506				
	WCDMA Band V	Top side	0.775	-0.46	8.55	-0.487	1.385	20.91	0.008	SPLSR ≤ 0.04, Not required
	2.4GHz Aux		0.610	-0.5	-12.36	-0.37				
	2.4GHz Main	Top side	0.349	0.74	-4.18	-0.506	0.959	8.19	0.011	SPLSR ≤ 0.04, Not required
	2.4GHz Aux		0.610	-0.5	-12.36	-0.37				



Simultaneous Transmission Scenario				WWAN+Main+BT						
Item	Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (cm)	SPLSR	Result
				x	y	z				
18	WCDMA Band V	Top side	0.775	-0.60	8.10	-0.34	1.790	12.06	0.020	SPLSR ≤ 0.04, Not required
	5GHz Main		1.015	-0.60	-3.96	-0.38				
	WCDMA Band V	Top side	0.775	-0.60	8.10	-0.34	1.035	20.58	0.005	SPLSR ≤ 0.04, Not required
	Bluetooth		0.260	-0.70	-12.48	-0.35				
	5GHz Main	Top side	1.015	-0.60	-3.96	-0.38	1.275	8.52	0.017	SPLSR ≤ 0.04, Not required
	Bluetooth		0.260	-0.70	-12.48	-0.35				



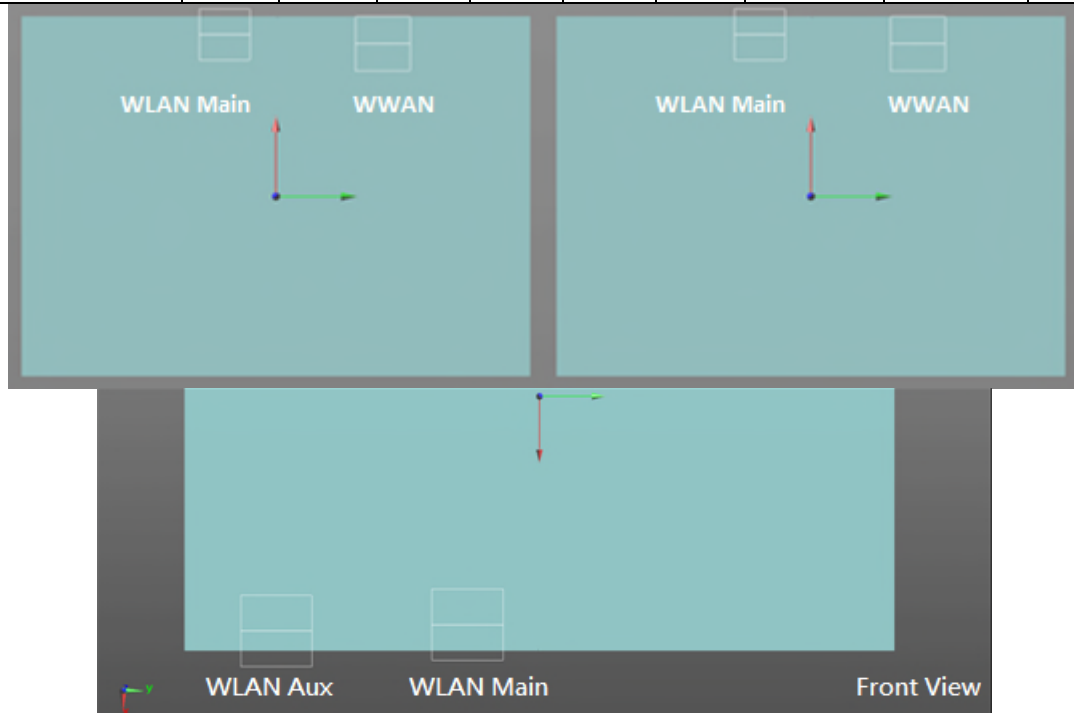
Simultaneous Transmission Scenario				WWAN+Main+Aux						
Item	Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (cm)	SPLSR	Result
				x	y	z				
19	WCDMA Band V	Top side	0.775	-0.60	8.10	-0.34	1.790	12.06	0.020	SPLSR ≤ 0.04, Not required
	5GHz Main		1.015	-0.60	-3.96	-0.38				
	WCDMA Band V	Top side	0.775	-0.60	8.10	-0.34	2.005	21.36	0.013	SPLSR ≤ 0.04, Not required
	5GHz Aux		1.230	-0.74	-13.26	-0.38				
	5GHz Main	Top side	1.015	-0.60	-3.96	-0.38	2.245	9.30	0.036	SPLSR ≤ 0.04, Not required
	5GHz Aux		1.230	-0.74	-13.26	-0.38				



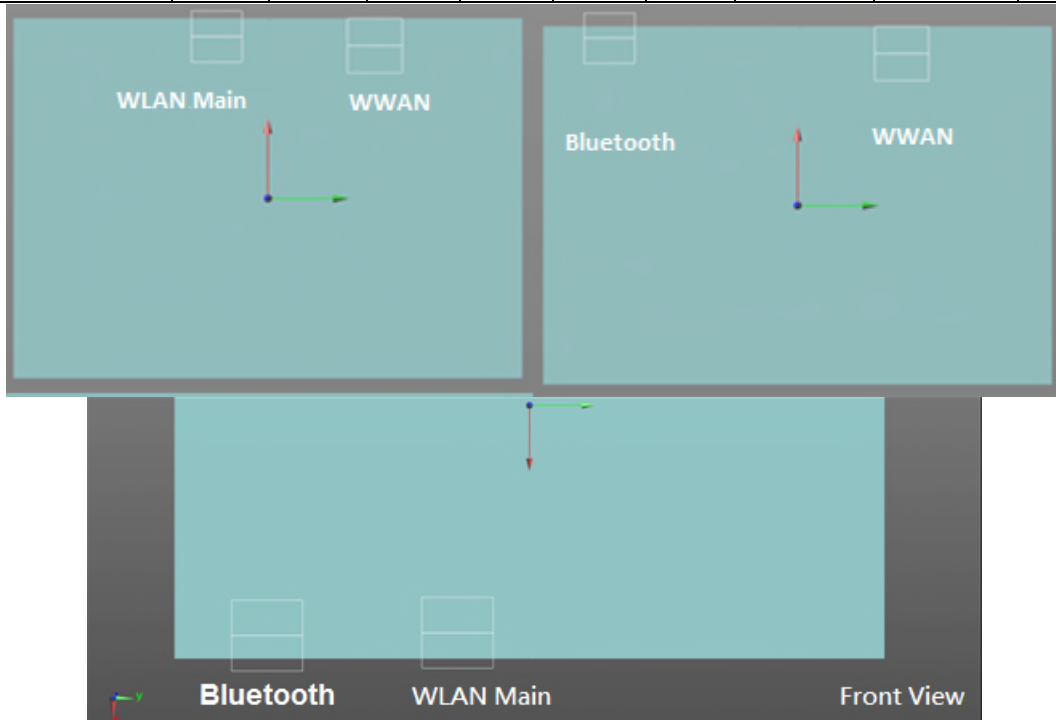
Sum of the SAR for LTE Band 2 + WLAN + Bluetooth

No.	Test Position	Simultaneous Transmission Scenario						Σ SAR 1g (W/kg)	SPLSR (Yes/No)	Item
		LTE Band 2	2.4GHz		5GHz		Bluetooth			
			Main	Aux	Main	Aux				
4	Back side	1.060	0.869	1.010	-	-	-	2.939	Yes	20
		1.060	0.869					1.929	0.029	
		1.060		1.010				2.070	0.017	
			0.869	1.010				1.879	0.030	
		1.060	0.869	-	-	-	0.440	2.369	Yes	21
		1.060	0.869					1.929	0.029	
		1.060					0.440	1.500	0.011	
			0.869				0.440	1.309	0.018	
		1.060	-	-	0.894	-	0.440	2.394	Yes	22
		1.060			0.894			1.954	0.028	
		1.060					0.440	1.500	0.011	
					0.894		0.440	1.334	0.019	
	1.060	-	-	0.894	0.806	-	2.76	Yes	23	
	1.060			0.894			1.954	0.028		
	1.060				0.806		1.866	0.014		
				0.894	0.806		1.700	0.028		
	Top side	0.474	0.349	0.610	-	-	-	1.433	No	24
		0.474	0.349	-	-	-	0.260	1.083	No	
		0.474	-	-	1.015	-	0.260	1.749	Yes	
		0.474			1.015			1.489	0.035	
0.474						0.260	0.734	0.005		
				1.015		0.260	1.275	0.017		
0.474		-	-	1.015	1.230	-	2.719	Yes		
0.474				1.015			1.489	0.035		
Right side	0.094	0.400	0.400	-	-	-	0.894	No	-	
	0.094	0.400	-	-	-	0.400	0.894	No		
	0.094	-	-	0.400	-	0.400	0.894	No		
	0.094	-	-	0.400	0.400	-	0.894	No		
Left side	0.400	0.400	0.237	-	-	-	1.037	No	-	
	0.400	0.400	-	-	-	0.107	0.907	No		
	0.400	-	-	0.400	-	0.107	0.907	No		
	0.400	-	-	0.400	0.222	-	1.022	No		

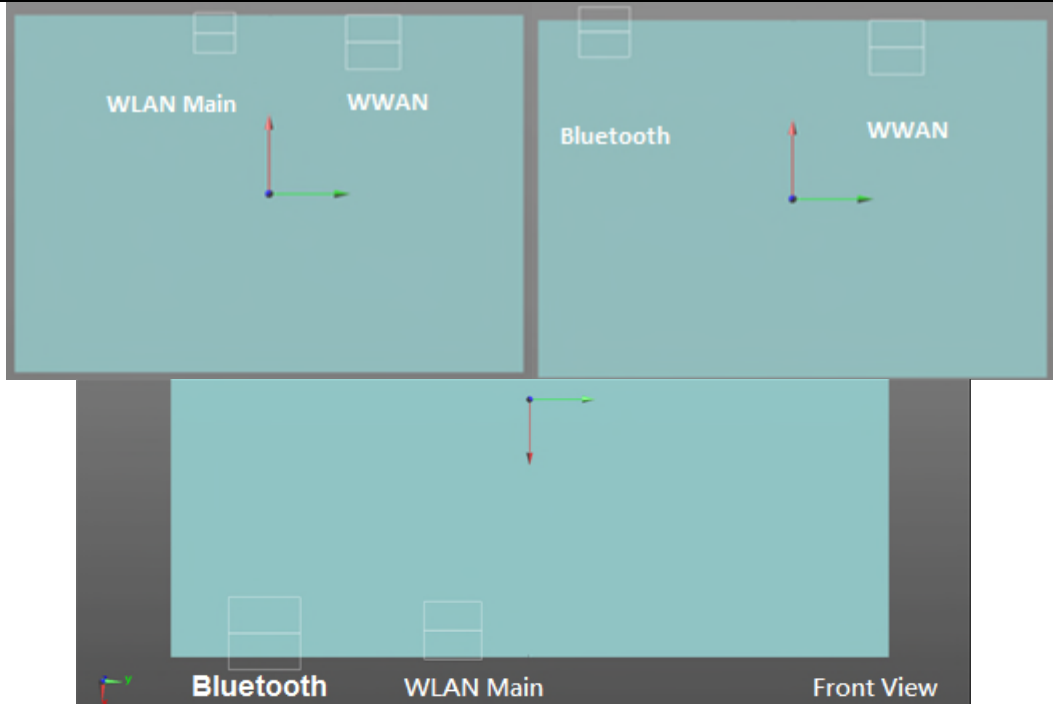
Simultaneous Transmission Scenario				WWAN+Main+Aux						
Item	Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (cm)	SPLSR	Result
				x	y	z				
20	LTE Band 2	Back side	1.060	9.21	6.62	-0.41	1.929	9.37	0.029	SPLSR ≤ 0.04, Not required
	2.4GHz Main		0.869	9.70	-2.74	-0.24				
	LTE Band 2	Back side	1.060	9.21	6.62	-0.41	2.070	18.02	0.017	SPLSR ≤ 0.04, Not required
	2.4GHz Aux		1.010	10.06	-11.42	-0.17				
	2.4GHz Main	Back side	0.869	9.70	-2.74	-0.24	1.879	8.688	0.030	SPLSR ≤ 0.04, Not required
	2.4GHz Aux		1.010	10.06	-11.42	-0.17				



Simultaneous Transmission Scenario				WWAN+Main+BT						
Item	Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (cm)	SPLSR	Result
				x	y	z				
21	LTE Band 2	Back side	1.060	9.21	6.62	-0.41	1.929	9.37	0.029	SPLSR ≤ 0.04, Not required
	2.4GHz Main		0.869	9.70	-2.74	-0.24				
	LTE Band 2	Back side	1.060	9.21	6.62	-0.41	1.500	17.81	0.011	SPLSR ≤ 0.04, Not required
	Bluetooth		0.440	9.82	-11.18	-0.19				
	2.4GHz Main	Back side	0.869	9.70	-2.74	-0.24	1.309	8.44	0.018	SPLSR ≤ 0.04, Not required
	Bluetooth		0.440	9.82	-11.18	-0.19				



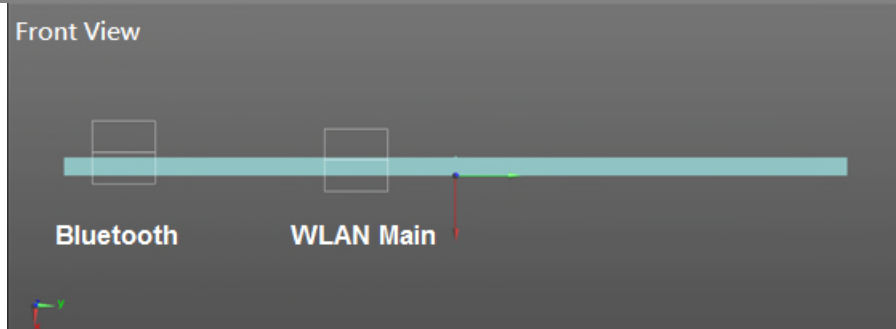
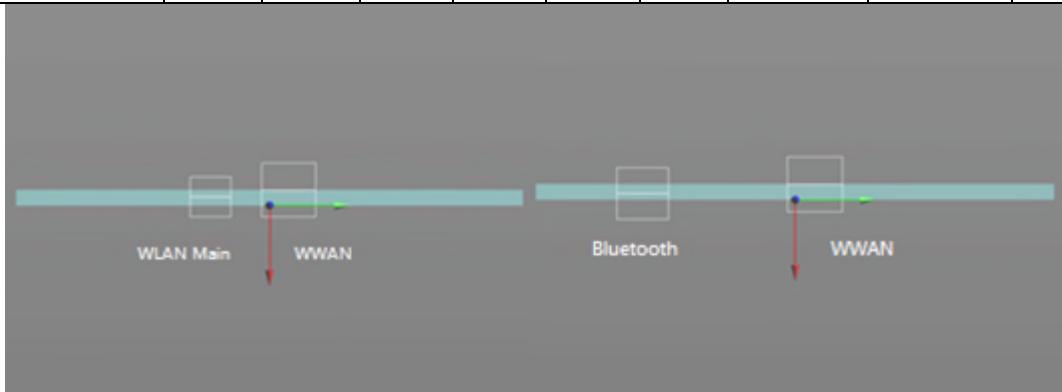
Simultaneous Transmission Scenario				WWAN+Main+BT						
Item	Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (cm)	SPLSR	Result
				x	y	z				
22	LTE Band 2	Back side	1.060	9.21	6.62	-0.41	1.954	9.91	0.028	SPLSR ≤ 0.04, Not required
	5GHz Main		0.894	9.52	-3.28	-0.20				
	LTE Band 2	Back side	1.060	9.21	6.62	-0.41	1.500	17.81	0.011	SPLSR ≤ 0.04, Not required
	Bluetooth		0.440	9.82	-11.18	-0.19				
	5GHz Main	Back side	0.894	9.52	-3.28	-0.2	1.334	7.906	0.019	SPLSR ≤ 0.04, Not required
	Bluetooth		0.440	9.82	-11.18	-0.19				



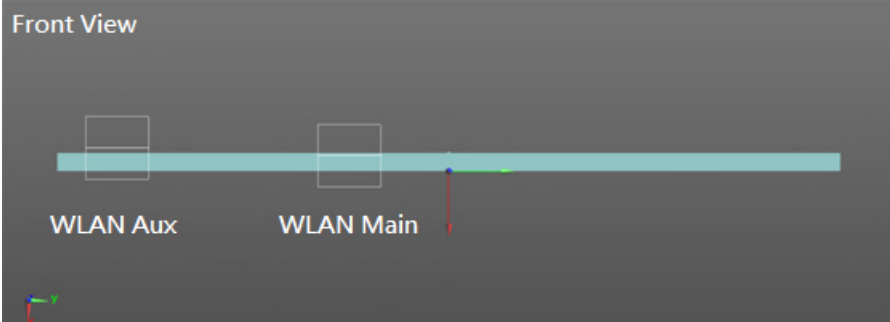
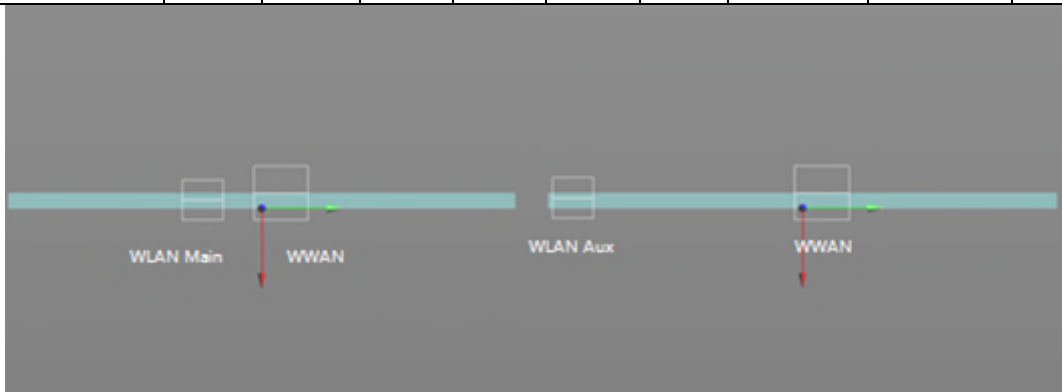
Simultaneous Transmission Scenario				WWAN+Main+Aux						
Item	Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (cm)	SPLSR	Result
				x	y	z				
23	LTE Band 2	Back side	1.060	9.21	6.62	-0.41	1.954	9.91	0.028	SPLSR ≤ 0.04, Not required
	5GHz Main		0.894	9.52	-3.28	-0.20				
	LTE Band 2	Back side	1.060	9.21	6.62	-0.41	1.866	18.07	0.014	SPLSR ≤ 0.04, Not required
	5GHz Aux		0.806	9.68	-11.44	-0.21				
	5GHz Main	Back side	0.894	9.52	-3.28	-0.2	1.7	8.162	0.028	SPLSR ≤ 0.04, Not required
	5GHz Aux		0.806	9.68	-11.44	-0.21				



Simultaneous Transmission Scenario				WWAN+Main+BT						
Item	Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (cm)	SPLSR	Result
				x	y	z				
24	LTE Band 2	Top side	0.474	-0.90	1.15	-0.34	1.489	5.12	0.035	SPLSR ≤ 0.04, Not required
	5GHz Main		1.015	-0.60	-3.96	-0.38				
	LTE Band 2	Top side	0.474	-0.90	1.15	-0.34	0.734	13.63	0.005	SPLSR ≤ 0.04, Not required
	Bluetooth		0.260	-0.70	-12.48	-0.35				
	5GHz Main	Top side	1.015	-0.60	-3.96	-0.38	1.275	8.52	0.017	SPLSR ≤ 0.04, Not required
	Bluetooth		0.260	-0.70	-12.48	-0.35				



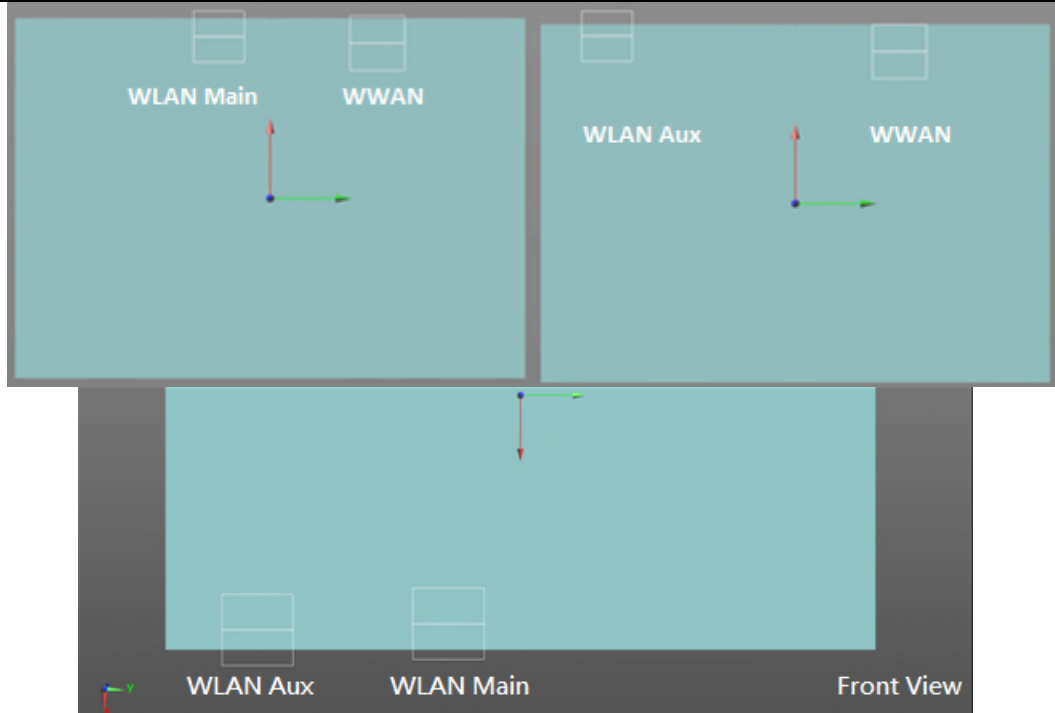
Simultaneous Transmission Scenario				WWAN+Main+Aux						
Item	Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (cm)	SPLSR	Result
				x	y	z				
25	LTE Band 2	Top side	0.474	-0.90	1.15	-0.34	1.489	5.12	0.035	SPLSR ≤ 0.04, Not required
	5GHz Main		1.015	-0.60	-3.96	-0.38				
	LTE Band 2	Top side	0.474	-0.90	1.15	-0.34	1.704	14.71	0.015	SPLSR ≤ 0.04, Not required
	5GHz Aux		1.230	-0.74	-13.26	-0.38				
	5GHz Main	Top side	1.015	-0.60	-3.96	-0.38	2.245	9.30	0.036	SPLSR ≤ 0.04, Not required
	5GHz Aux		1.230	-0.74	-13.26	-0.38				



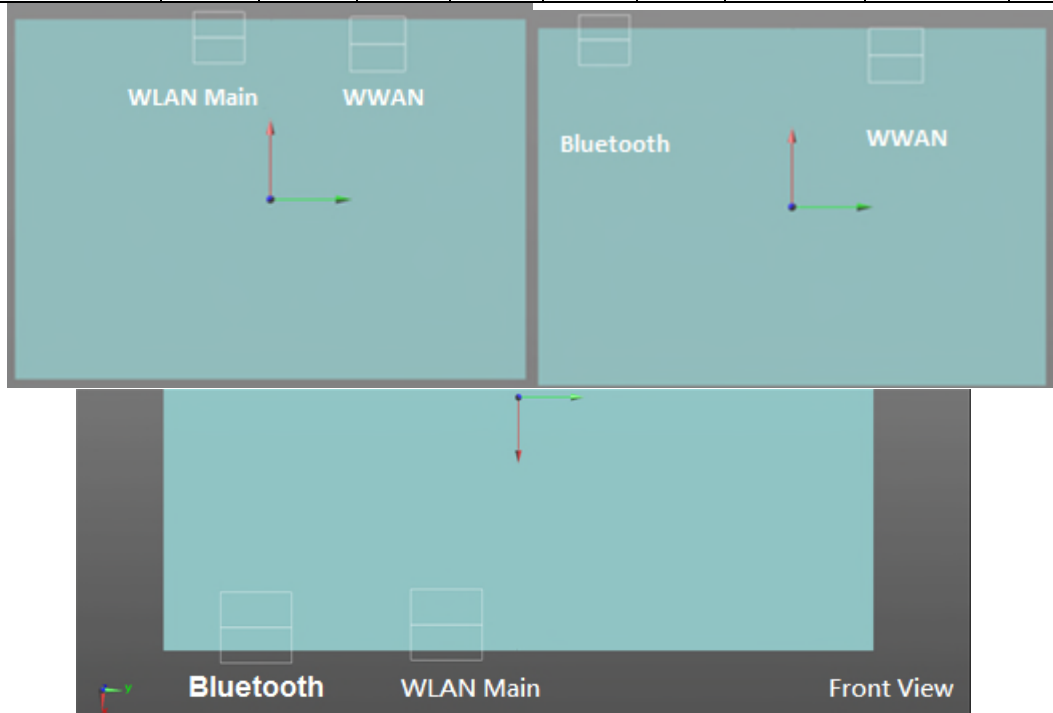
Sum of the SAR for LTE Band 4 + WLAN + Bluetooth

No.	Test Position	Simultaneous Transmission Scenario					Σ SAR 1g (W/kg)	SPLSR (Yes/No)	Item	
		LTE Band 4	2.4GHz		5GHz					Bluetooth
			Main	Aux	Main	Aux				
5	Back side	0.860	0.869	1.010	-	-	-	2.703	Yes	26
		0.860	0.869					1.729	0.025	
		0.860		1.010				1.870	0.014	
			0.869	1.010				1.879	0.030	
		0.860	0.869	-	-	-	0.440	2.133	Yes	27
		0.860	0.869					1.729	0.025	
		0.860					0.440	1.300	0.008	
			0.869				0.440	1.309	0.018	
		0.860	-	-	0.894	-	0.440	2.158	Yes	28
		0.860			0.894			1.754	0.024	
	0.860					0.440	1.300	0.009		
				0.894		0.440	1.334	0.019		
	0.860	-	-	0.894	0.806	-	2.524	Yes	29	
	0.860			0.894			1.754	0.024		
	0.860				0.806		1.666	0.012		
				0.894	0.806		1.700	0.028		
	Top side	0.567	0.349	0.610	-	-	-	1.526	No	30
		0.567	0.349	-	-	-	0.260	1.176	No	
		0.567	-	-	1.015	-	0.260	1.842	Yes	
		0.567			1.015			1.582	0.038	
0.567						0.260	0.827	0.005		
				1.015		0.260	1.275	0.017		
0.567		-	-	1.015	1.230	-	2.812	Yes		
0.567				1.015			1.582	0.038		
0.567				1.230		1.797	0.017	31		
			1.015	1.230		2.245	0.036			
Right side	0.35	0.400	0.400	-	-	-	1.15	No	-	
	0.35	0.400	-	-	-	0.400	1.15	No	-	
	0.35	-	-	0.400	-	0.400	1.15	No	-	
	0.35	-	-	0.400	0.400	-	1.15	No	-	
Left side	0.400	0.400	0.237	-	-	-	1.037	No	-	
	0.400	0.400	-	-	-	0.107	0.907	No	-	
	0.400	-	-	0.400	-	0.107	0.907	No	-	
	0.400	-	-	0.400	0.222	-	1.022	No	-	

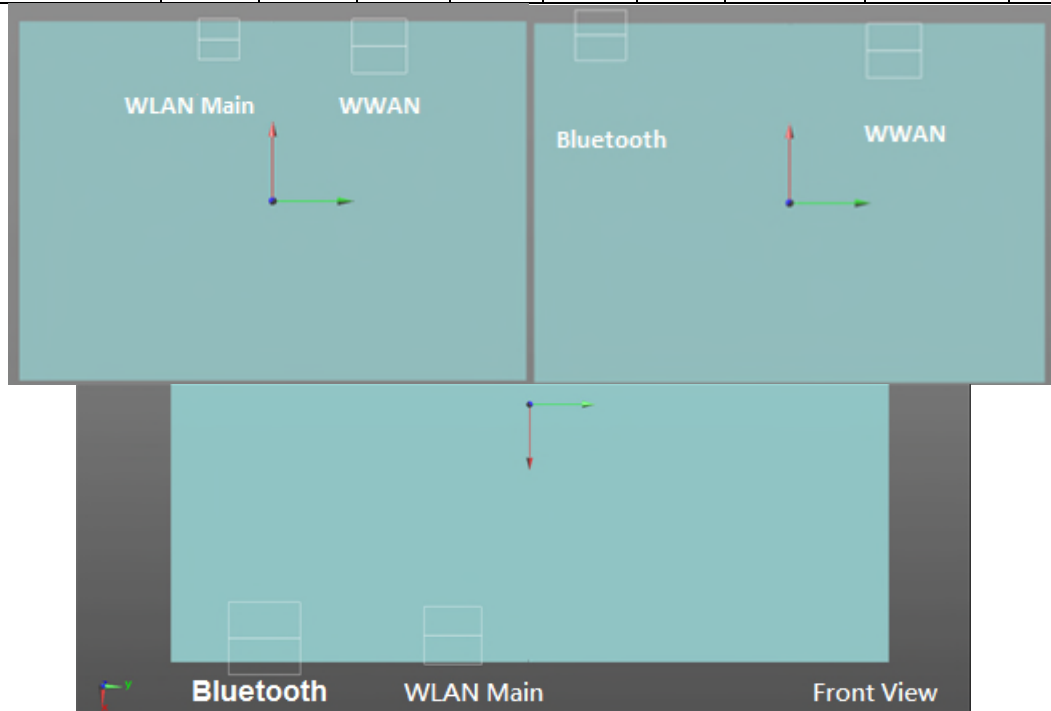
Simultaneous Transmission Scenario				WWAN+Main+Aux						
Item	Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (cm)	SPLSR	Result
				x	y	z				
26	LTE Band 4	Back side	0.860	9.05	6.31	-0.45	1.729	9.08	0.025	SPLSR ≤ 0.04, Not required
	2.4GHz Main		0.869	9.70	-2.74	-0.24				
	LTE Band 4	Back side	0.860	9.05	6.31	-0.45	1.870	17.76	0.014	SPLSR ≤ 0.04, Not required
	2.4GHz Aux		1.010	10.06	-11.42	-0.17				
	2.4GHz Main	Back side	0.869	9.70	-2.74	-0.24	1.879	8.688	0.030	SPLSR ≤ 0.04, Not required
	2.4GHz Aux		1.010	10.06	-11.42	-0.17				



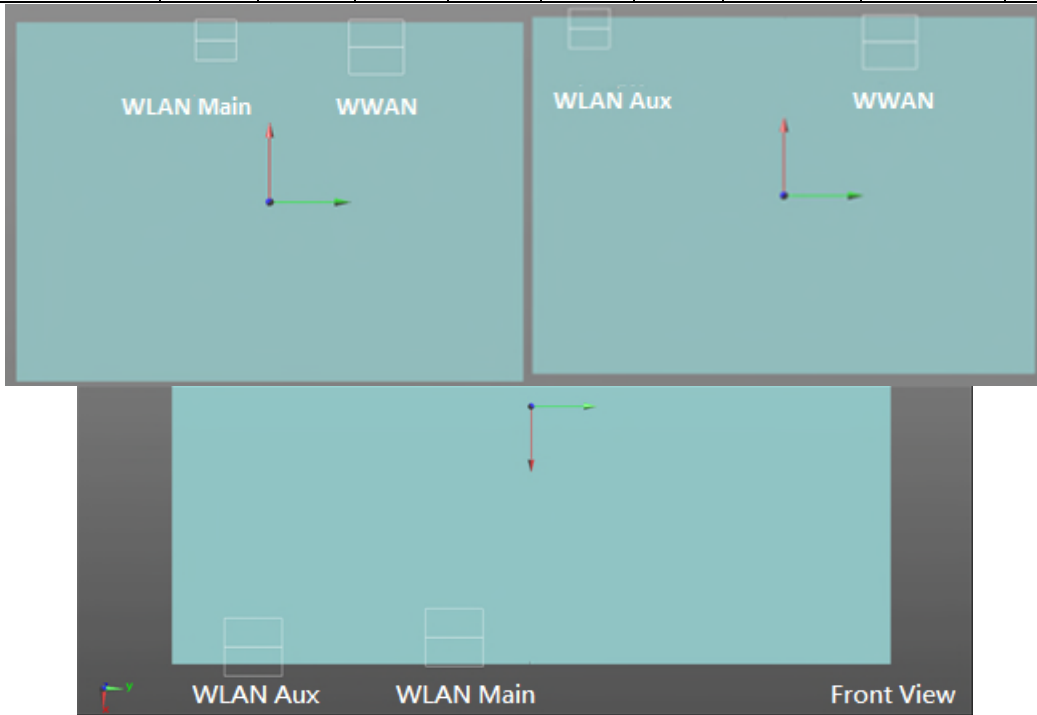
Simultaneous Transmission Scenario				WWAN+Main+BT						
Item	Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (cm)	SPLSR	Result
				x	y	z				
27	LTE Band 4	Back side	0.860	9.05	6.31	-0.45	1.729	9.08	0.025	SPLSR ≤ 0.04, Not required
	2.4GHz Main		0.869	9.70	-2.74	-0.24				
	LTE Band 4	Back side	0.860	9.05	6.31	-0.45	1.300	17.51	0.008	SPLSR ≤ 0.04, Not required
	Bluetooth		0.440	9.82	-11.18	-0.19				
	2.4GHz Main	Back side	0.869	9.70	-2.74	-0.24	1.309	8.44	0.018	SPLSR ≤ 0.04, Not required
	Bluetooth		0.440	9.82	-11.18	-0.19				



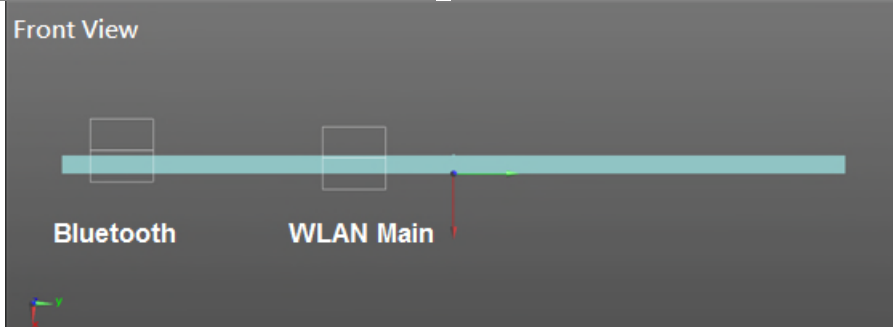
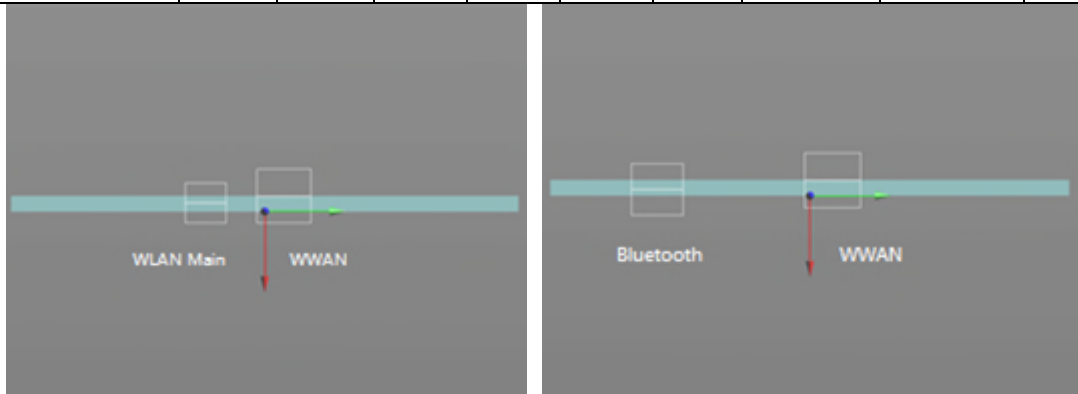
Simultaneous Transmission Scenario				WWAN+Main+BT						
Item	Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (cm)	SPLSR	Result
				x	y	z				
28	LTE Band 4	Back side	0.860	9.05	6.31	-0.45	1.754	9.60	0.024	SPLSR ≤ 0.04, Not required
	5GHz Main		0.894	9.52	-3.28	-0.20				
	LTE Band 4	Back side	0.860	9.05	6.31	-0.45	1.300	17.5	0.009	SPLSR ≤ 0.04, Not required
	Bluetooth		0.440	9.82	-11.18	-0.19				
	5GHz Main	Back side	0.894	9.52	-3.28	-0.2	1.334	7.906	0.019	SPLSR ≤ 0.04, Not required
	Bluetooth		0.440	9.82	-11.18	-0.19				



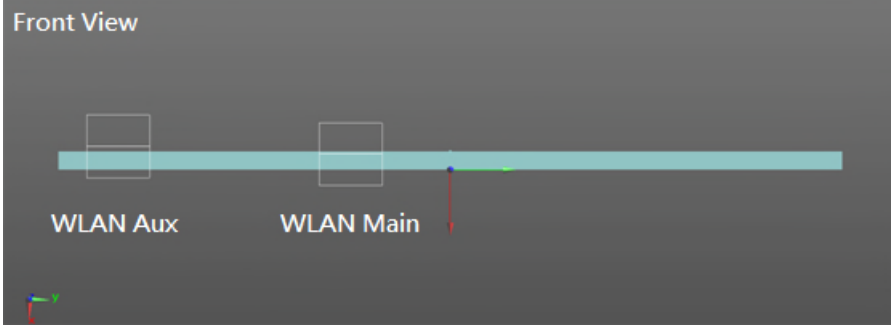
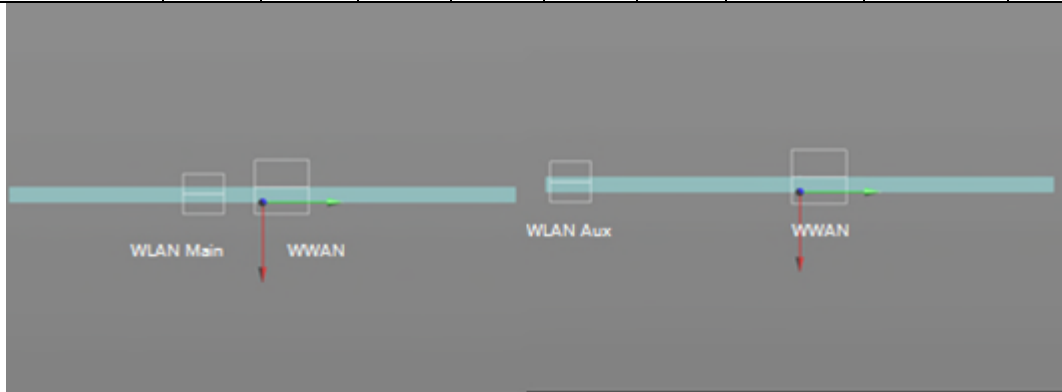
Simultaneous Transmission Scenario				WWAN+Main+Aux						
Item	Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (cm)	SPLSR	Result
				x	y	z				
29	LTE Band 4	Back side	0.860	9.05	6.31	-0.45	1.754	9.60	0.024	SPLSR ≤ 0.04, Not required
	5GHz Main		0.894	9.52	-3.28	-0.20				
	LTE Band 4	Back side	0.860	9.05	6.31	-0.45	1.666	17.76	0.012	SPLSR ≤ 0.04, Not required
	5GHz Aux		0.806	9.68	-11.44	-0.21				
	5GHz Main	Back side	0.894	9.52	-3.28	-0.2	1.7	8.162	0.028	SPLSR ≤ 0.04, Not required
	5GHz Aux		0.806	9.68	-11.44	-0.21				



Simultaneous Transmission Scenario				WWAN+Main+BT						
Item	Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (cm)	SPLSR	Result
				x	y	z				
30	LTE Band 4	Top side	0.567	-0.90	1.14	-0.68	1.582	5.11	0.038	SPLSR ≤ 0.04, Not required
	5GHz Main		1.015	-0.60	-3.96	-0.38				
	LTE Band 4	Top side	0.567	-0.90	1.14	-0.68	0.827	13.63	0.005	SPLSR ≤ 0.04, Not required
	Bluetooth		0.260	-0.70	-12.48	-0.35				
	5GHz Main	Top side	1.015	-0.60	-3.96	-0.38	1.275	8.52	0.017	SPLSR ≤ 0.04, Not required
	Bluetooth		0.260	-0.70	-12.48	-0.35				



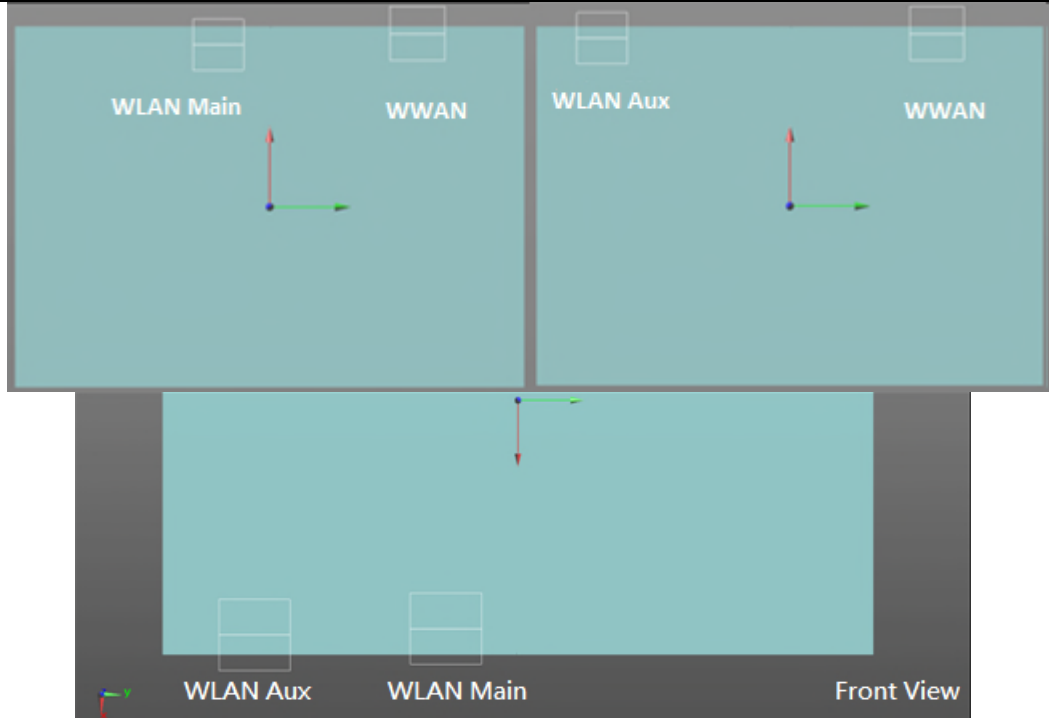
Simultaneous Transmission Scenario				WWAN+Main+Aux						
Item	Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (cm)	SPLSR	Result
				x	y	z				
31	LTE Band 4	Top side	0.567	-0.90	1.14	-0.68	1.582	5.12	0.038	SPLSR ≤ 0.04, Not required
	5GHz Main		1.015	-0.60	-3.96	-0.38				
	LTE Band 4	Top side	0.567	-0.90	1.14	-0.68	1.797	14.40	0.017	SPLSR ≤ 0.04, Not required
	5GHz Aux		1.230	-0.74	-13.26	-0.38				
	5GHz Main	Top side	1.015	-0.60	-3.96	-0.38	2.245	9.30	0.036	SPLSR ≤ 0.04, Not required
	5GHz Aux		1.230	-0.74	-13.26	-0.38				



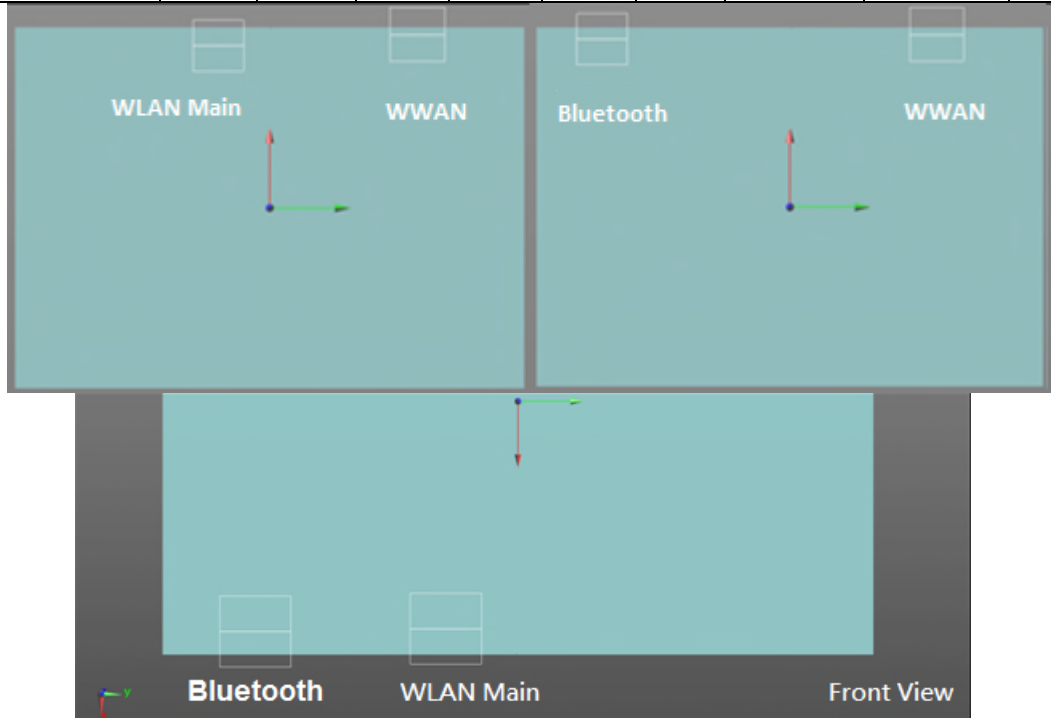
Sum of the SAR for LTE Band 5 + WLAN + Bluetooth

No.	Test Position	Simultaneous Transmission Scenario						Σ SAR 1g (W/kg)	SPLSR (Yes/No)	Item
		LTE Band 5	2.4GHz		5GHz		Bluetooth			
			Main	Aux	Main	Aux				
6	Back side	0.940	0.869	1.010	-	-	-	2.819	Yes	
		0.940	0.869					1.809	0.021	32
		0.940		1.010				1.950	0.013	
			0.869	1.010				1.879	0.030	
		0.940	0.869	-	-	-	0.440	2.249	Yes	
		0.940	0.869					1.809	0.021	33
		0.940					0.440	1.380	0.008	
			0.869				0.440	1.309	0.018	
		0.940	-	-	0.894	-	0.440	2.274	Yes	
		0.940			0.894			1.834	0.020	34
		0.940					0.440	1.380	0.008	
					0.894		0.440	1.334	0.019	
	0.940	-	-	0.894	0.806	-	2.64	Yes		
	0.940			0.894			1.834	0.020	35	
	0.940				0.806		1.746	0.011		
				0.894	0.806		1.700	0.028		
	Top side	0.730	0.349	0.610	-	-	-	1.889	Yes	
		0.730	0.349					1.079	0.009	36
		0.730		0.610				1.340	0.007	
			0.349	0.610				0.959	0.011	
		0.730	0.349	-	-	-	0.260	1.339	No	-
		0.730	-	-	1.015	-	0.260	2.205	Yes	
		0.730			1.015			1.745	0.019	37
		0.730					0.260	0.990	0.005	
					1.015		0.260	1.275	0.017	
		0.730	-	-	1.015	1.230	-	3.175	Yes	
	0.730			1.015			1.745	0.019	38	
	0.730				1.230		1.960	0.005		
			1.015	1.230		2.245	0.036			
Right side	0.059	0.400	0.400	-	-	-	0.859	No	-	
	0.059	0.400	-	-	-	0.400	0.859	No	-	
	0.059	-	-	0.400	-	0.400	0.859	No	-	
	0.059	-	-	0.400	0.400	-	0.859	No	-	
Left side	0.400	0.400	0.237	-	-	-	1.037	No	-	
	0.400	0.400	-	-	-	0.107	0.907	No	-	
	0.400	-	-	0.400	-	0.107	0.907	No	-	
	0.400	-	-	0.400	0.222	-	1.022	No	-	

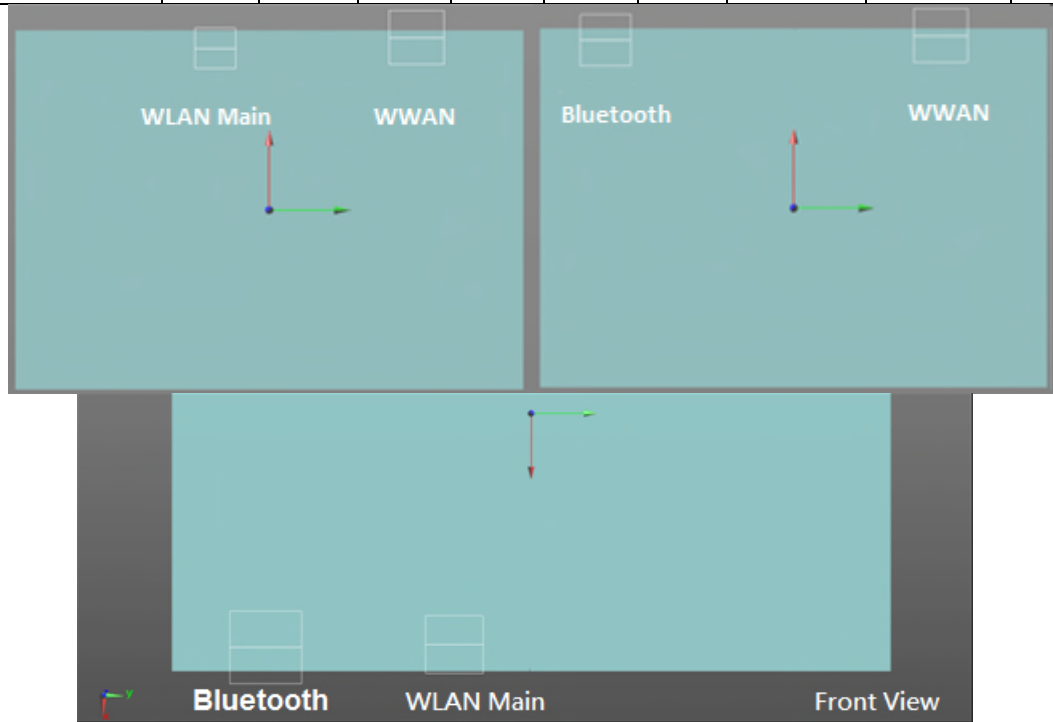
Simultaneous Transmission Scenario				WWAN+Main+Aux						
Item	Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (cm)	SPLSR	Result
				x	y	z				
32	LTE Band 5	Back side	0.940	10.23	8.70	-0.27	1.809	11.45	0.021	SPLSR ≤ 0.04, Not required
	2.4GHz Main		0.869	9.70	-2.74	-0.24				
	LTE Band 5	Back side	0.940	10.23	8.70	-0.27	1.950	20.12	0.013	SPLSR ≤ 0.04, Not required
	2.4GHz Aux		1.010	10.06	-11.42	-0.17				
	2.4GHz Main	Back side	0.869	9.70	-2.74	-0.24	1.879	8.688	0.030	SPLSR ≤ 0.04, Not required
	2.4GHz Aux		1.010	10.06	-11.42	-0.17				



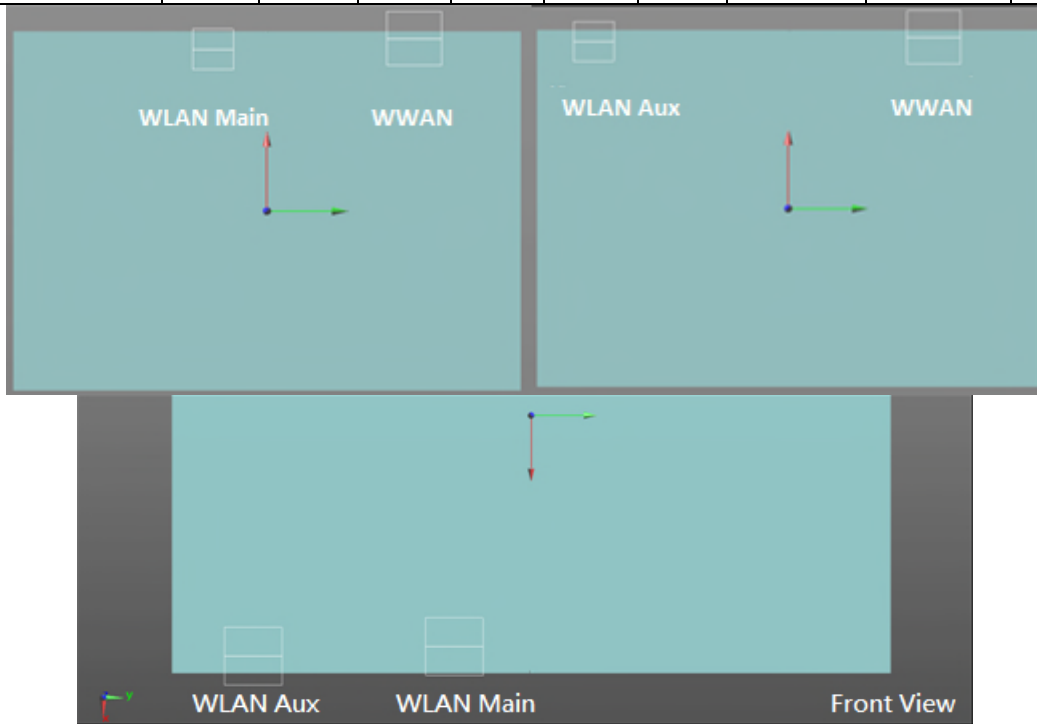
Simultaneous Transmission Scenario				WWAN+Main+BT						
Item	Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (cm)	SPLSR	Result
				x	y	z				
33	LTE Band 5	Back side	0.940	10.23	8.70	-0.27	1.809	11.45	0.021	SPLSR ≤ 0.04, Not required
	2.4GHz Main		0.869	9.70	-2.74	-0.24				
	LTE Band 5	Back side	0.940	10.23	8.70	-0.27	1.380	19.88	0.008	SPLSR ≤ 0.04, Not required
	Bluetooth		0.440	9.82	-11.18	-0.19				
	2.4GHz Main	Back side	0.869	9.70	-2.74	-0.24	1.309	8.44	0.018	SPLSR ≤ 0.04, Not required
	Bluetooth		0.440	9.82	-11.18	-0.19				



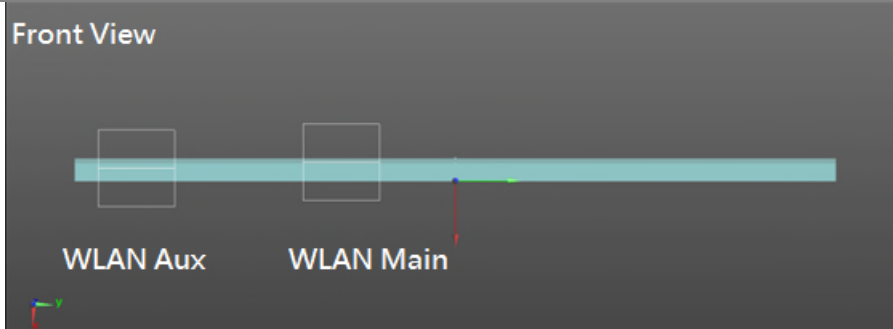
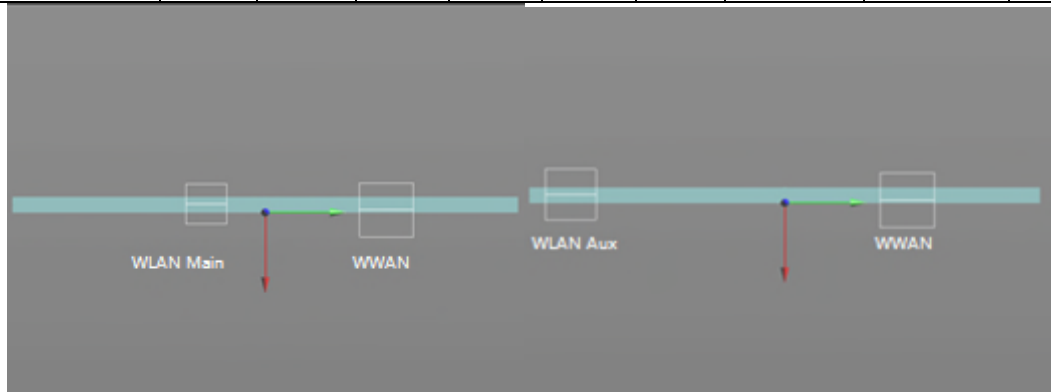
Simultaneous Transmission Scenario				WWAN+Main+BT						
Item	Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (cm)	SPLSR	Result
				x	y	z				
34	LTE Band 5	Back side	0.940	10.23	8.70	-0.27	1.834	12.00	0.020	SPLSR ≤ 0.04, Not required
	5GHz Main		0.894	9.52	-3.28	-0.20				
	LTE Band 5	Back side	0.940	10.23	8.70	-0.27	1.380	19.88	0.008	SPLSR ≤ 0.04, Not required
	Bluetooth		0.440	9.82	-11.18	-0.19				
	5GHz Main	Back side	0.894	9.52	-3.28	-0.2	1.334	7.906	0.019	SPLSR ≤ 0.04, Not required
	Bluetooth		0.440	9.82	-11.18	-0.19				



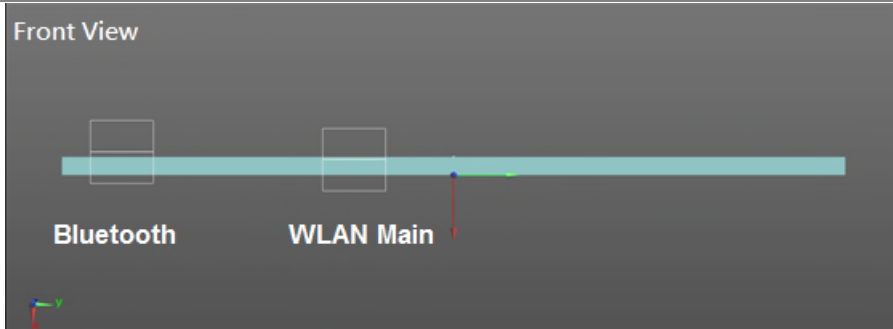
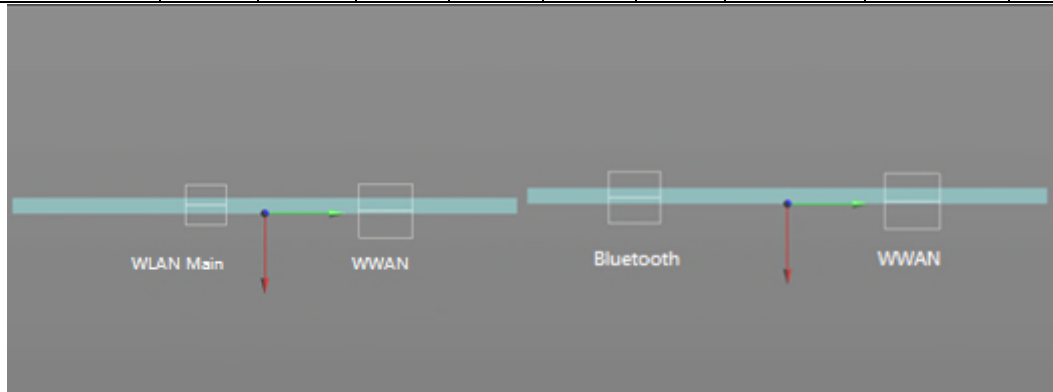
Simultaneous Transmission Scenario				WWAN+Main+Aux						
Item	Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (cm)	SPLSR	Result
				x	y	z				
35	LTE Band 5	Back side	0.940	10.23	8.70	-0.27	1.834	12.00	0.020	SPLSR ≤ 0.04, Not required
	5GHz Main		0.894	9.52	-3.28	-0.20				
	LTE Band 5	Back side	0.940	10.23	8.70	-0.27	1.746	20.15	0.011	SPLSR ≤ 0.04, Not required
	5GHz Aux		0.806	9.68	-11.44	-0.21				
	5GHz Main	Back side	0.894	9.52	-3.28	-0.2	1.7	8.162	0.028	SPLSR ≤ 0.04, Not required
	5GHz Aux		0.806	9.68	-11.44	-0.21				



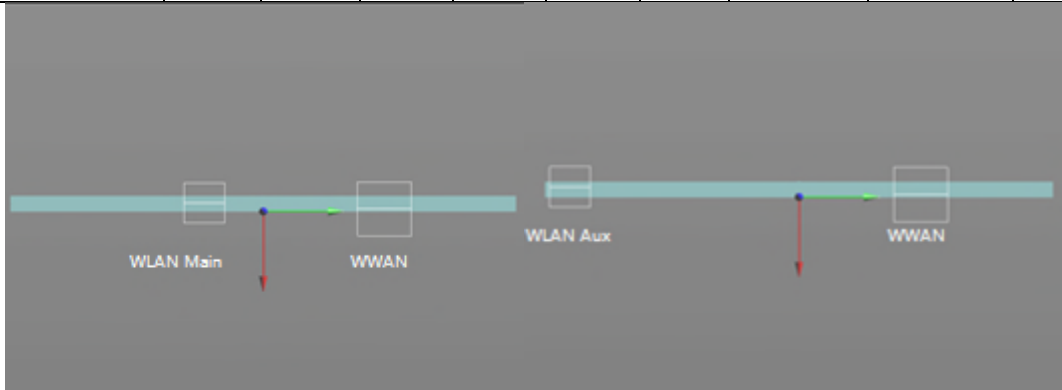
Simultaneous Transmission Scenario				WWAN+Main+Aux						
Item	Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (cm)	SPLSR	Result
				x	y	z				
36	LTE Band 5	Top side	0.730	-0.31	8.00	-0.43	1.079	12.19	0.009	SPLSR ≤ 0.04, Not required
	2.4GHz Main		0.349	-0.74	-4.18	-0.51				
	LTE Band 5	Top side	0.730	-0.31	8.00	-0.43	1.340	20.36	0.007	SPLSR ≤ 0.04, Not required
	2.4GHz Aux		0.610	-0.50	-12.36	-0.37				
	2.4GHz Main	Top side	0.349	-0.74	-4.18	-0.51	0.959	8.19	0.011	SPLSR ≤ 0.04, Not required
	2.4GHz Aux		0.610	-0.50	-12.36	-0.37				



Simultaneous Transmission Scenario				WWAN+Main+BT						
Item	Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (cm)	SPLSR	Result
				x	y	z				
37	LTE Band 5	Top side	0.730	-0.31	8.00	-0.43	1.745	11.96	0.019	SPLSR ≤ 0.04, Not required
	5GHz Main		1.015	-0.60	-3.96	-0.38				
	LTE Band 5	Top side	0.730	-0.31	8.00	-0.43	0.990	20.48	0.005	SPLSR ≤ 0.04, Not required
	Bluetooth		0.260	-0.70	-12.48	-0.35				
	5GHz Main	Top side	1.015	-0.60	-3.96	-0.38	1.275	8.52	0.017	SPLSR ≤ 0.04, Not required
	Bluetooth		0.260	-0.70	-12.48	-0.35				



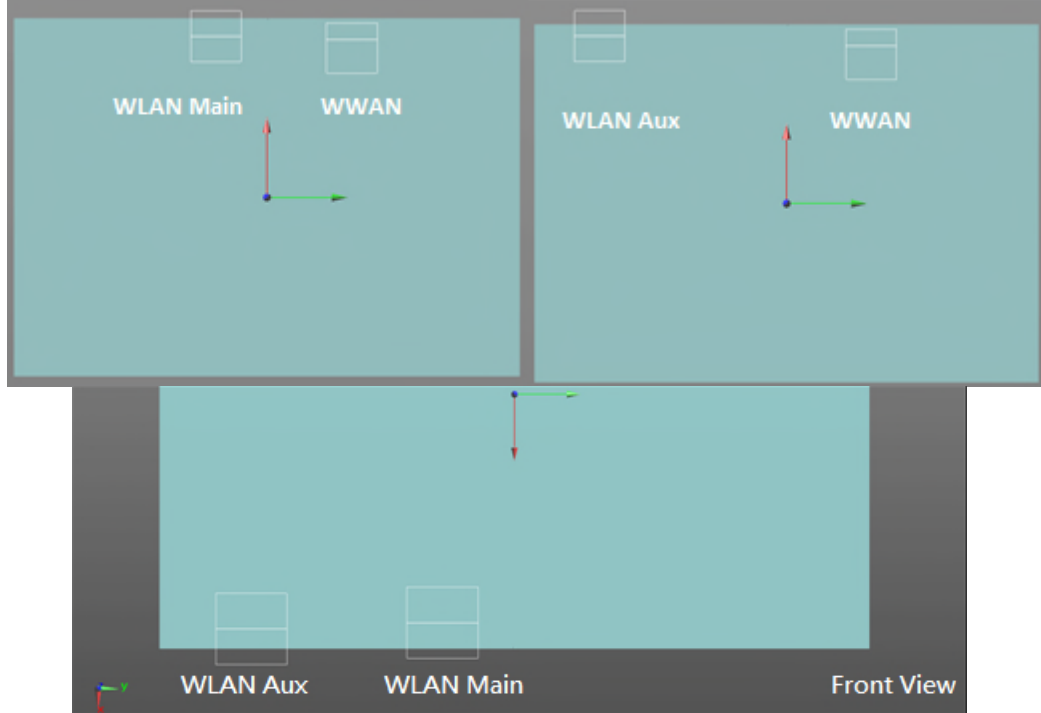
Simultaneous Transmission Scenario				WWAN+Main+Aux						
Item	Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (cm)	SPLSR	Result
				x	y	z				
38	LTE Band 5	Top side	0.730	-0.31	8.00	-0.43	1.745	11.96	0.019	SPLSR ≤ 0.04, Not required
	5GHz Main		1.015	-0.60	-3.96	-0.38				
	LTE Band 5	Top side	0.730	-0.31	8.00	-0.43	1.960	21.27	0.005	SPLSR ≤ 0.04, Not required
	5GHz Aux		1.230	-0.74	-13.26	-0.38				
	5GHz Main	Top side	1.015	-0.60	-3.96	-0.38	2.245	9.30	0.036	SPLSR ≤ 0.04, Not required
	5GHz Aux		1.230	-0.74	-13.26	-0.38				



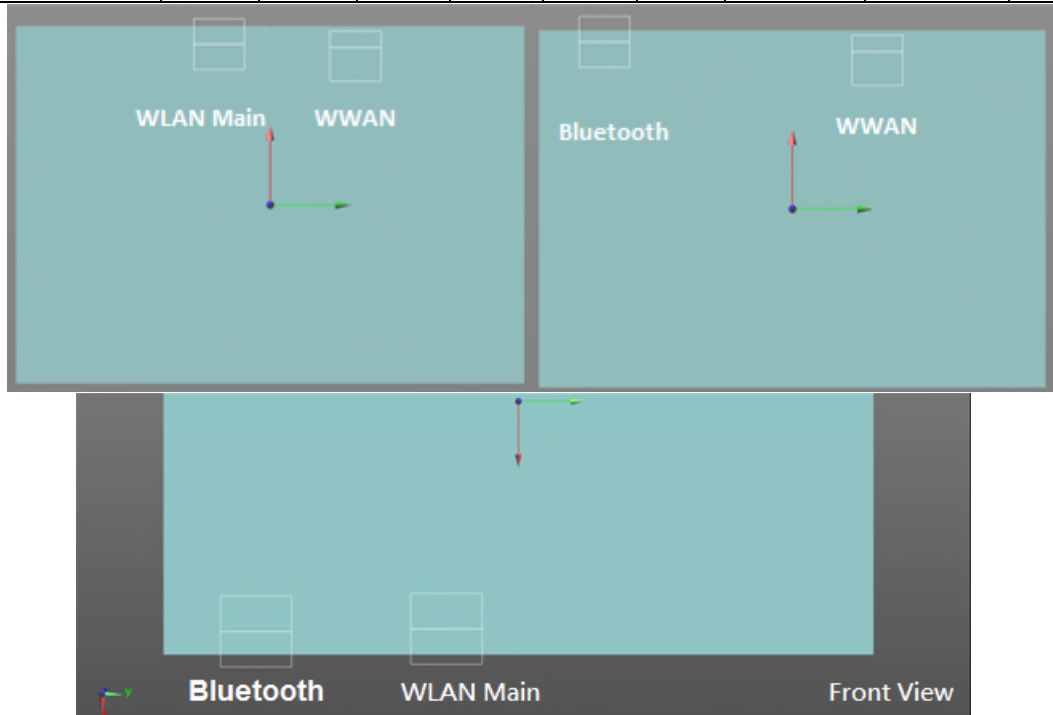
Sum of the SAR for LTE Band 7 + WLAN + Bluetooth

No.	Test Position	Simultaneous Transmission Scenario						Σ SAR 1g (W/kg)	SPLSR (Yes/No)	Item
		LTE Band 7	2.4GHz		5GHz		Bluetooth			
			Main	Aux	Main	Aux				
7	Back side	0.523	0.869	1.010	-	-	-	2.402	Yes	39
		0.523	0.869					1.392	0.020	
		0.523		1.010				1.533	0.011	
			0.869	1.010				1.879	0.030	
		0.523	0.869	-	-	-	0.440	1.832	Yes	40
		0.523	0.869					1.392	0.020	
		0.523					0.440	0.963	0.006	
			0.869				0.440	1.309	0.018	
		0.523	-	-	0.894	-	0.440	1.857	Yes	41
		0.523			0.894			1.417	0.020	
		0.523					0.440	0.963	0.006	
					0.894		0.440	1.334	0.019	
	0.523	-	-	0.894	0.806	-	2.223	Yes	42	
	0.523			0.894			1.417	0.020		
	0.523				0.806		1.329	0.009		
				0.894	0.806		1.700	0.028		
	Top side	0.509	0.349	0.610	-	-	-	1.468	No	-
		0.509	0.349	-	-	-	0.260	1.118	No	-
		0.509	-	-	1.015	-	0.260	1.784	Yes	43
		0.509			1.015			1.524	0.039	
		0.509					0.260	0.769	0.005	
					1.015		0.260	1.275	0.017	
		0.509	-	-	1.015	1.230	-	2.754	Yes	44
		0.509			1.015			1.524	0.039	
0.509				1.230		1.739	0.016			
			1.015	1.230		2.245	0.036			
Right side	0.196	0.400	0.400	-	-	-	0.996	No	-	
	0.196	0.400	-	-	-	0.400	0.996	No	-	
	0.196	-	-	0.400	-	0.400	0.996	No	-	
	0.196	-	-	0.400	0.400	-	0.996	No	-	
Left side	0.400	0.400	0.237	-	-	-	1.037	No	-	
	0.400	0.400	-	-	-	0.107	0.907	No	-	
	0.400	-	-	0.400	-	0.107	0.907	No	-	
	0.400	-	-	0.400	0.222	-	1.022	No	-	

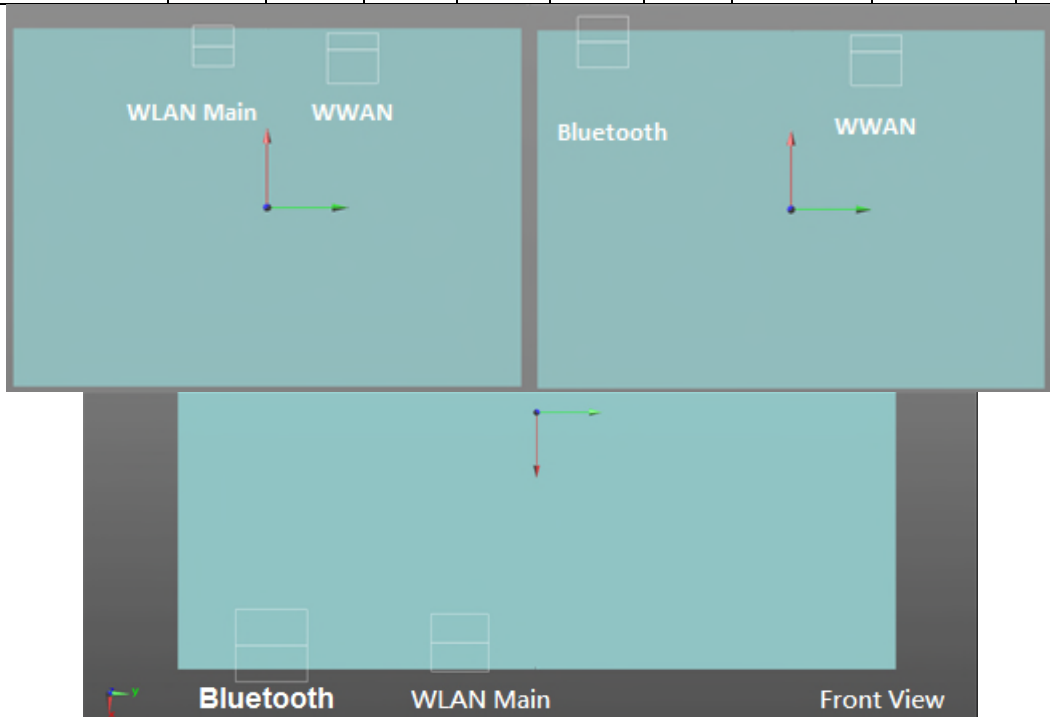
Simultaneous Transmission Scenario				WWAN+Main+Aux						
Item	Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (cm)	SPLSR	Result
				x	y	z				
39	LTE Band 7	Back side	0.523	9.20	5.24	-0.40	1.392	8.00	0.020	SPLSR ≤ 0.04, Not required
	2.4GHz Main		0.869	9.70	-2.74	-0.24				
	LTE Band 7	Back side	0.523	9.20	5.24	-0.40	1.533	16.68	0.011	SPLSR ≤ 0.04, Not required
	2.4GHz Aux		1.010	10.06	-11.42	-0.17				
	2.4GHz Main	Back side	0.869	9.70	-2.74	-0.24	1.879	8.688	0.030	SPLSR ≤ 0.04, Not required
	2.4GHz Aux		1.010	10.06	-11.42	-0.17				



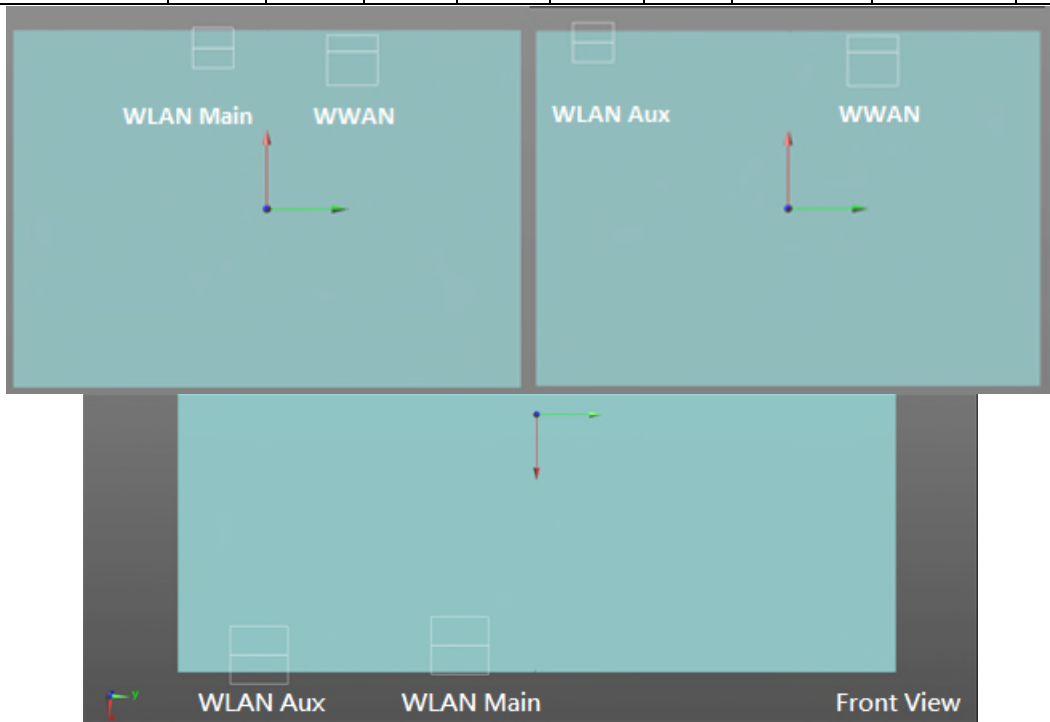
Simultaneous Transmission Scenario				WWAN+Main+BT						
Item	Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (cm)	SPLSR	Result
				x	y	z				
40	LTE Band 7	Back side	0.523	9.20	5.24	-0.40	1.392	8.00	0.020	SPLSR ≤ 0.04, Not required
	2.4GHz Main		0.869	9.70	-2.74	-0.24				
	LTE Band 7	Back side	0.523	9.20	5.24	-0.40	0.963	16.43	0.006	SPLSR ≤ 0.04, Not required
	Bluetooth		0.440	9.82	-11.18	-0.19				
	2.4GHz Main	Back side	0.869	9.70	-2.74	-0.24	1.309	8.44	0.018	SPLSR ≤ 0.04, Not required
	Bluetooth		0.440	9.82	-11.18	-0.19				



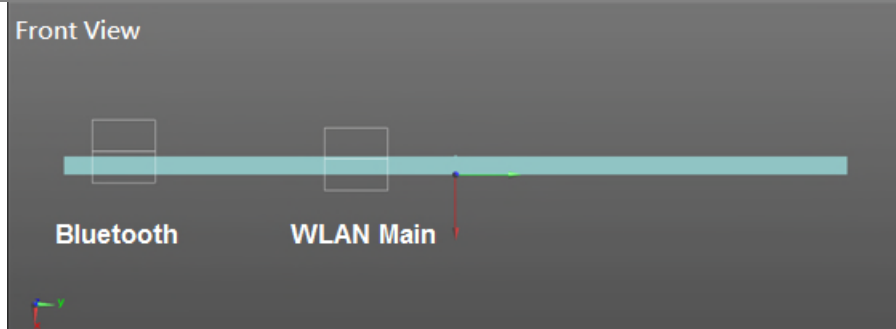
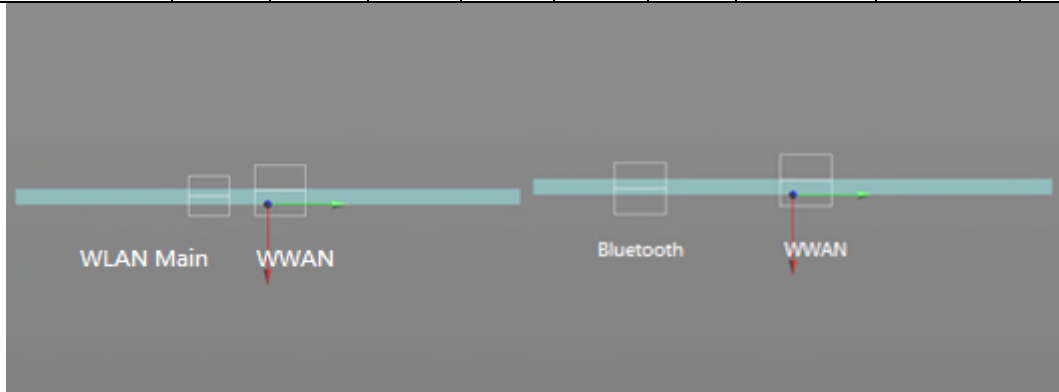
Simultaneous Transmission Scenario				WWAN+Main+BT						
Item	Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (cm)	SPLSR	Result
				x	y	z				
41	LTE Band 7	Back side	0.523	9.20	5.24	-0.40	1.417	8.53	0.020	SPLSR ≤ 0.04, Not required
	5GHz Main		0.894	9.52	-3.28	-0.20				
	LTE Band 7	Back side	0.523	9.20	5.24	-0.40	0.963	16.43	0.006	SPLSR ≤ 0.04, Not required
	Bluetooth		0.440	9.82	-11.18	-0.19				
	5GHz Main	Back side	0.894	9.52	-3.28	-0.2	1.334	7.906	0.019	SPLSR ≤ 0.04, Not required
	Bluetooth		0.440	9.82	-11.18	-0.19				



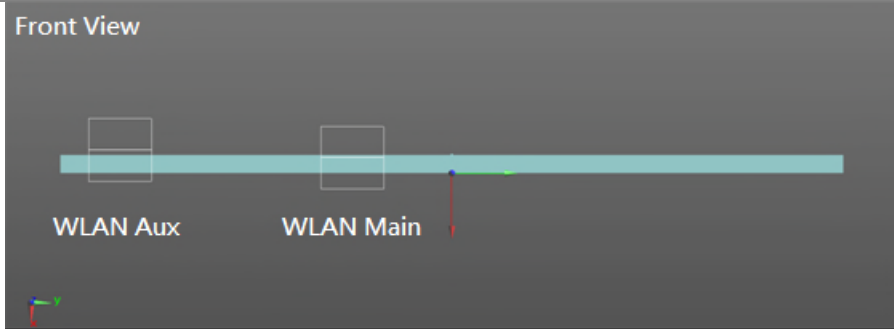
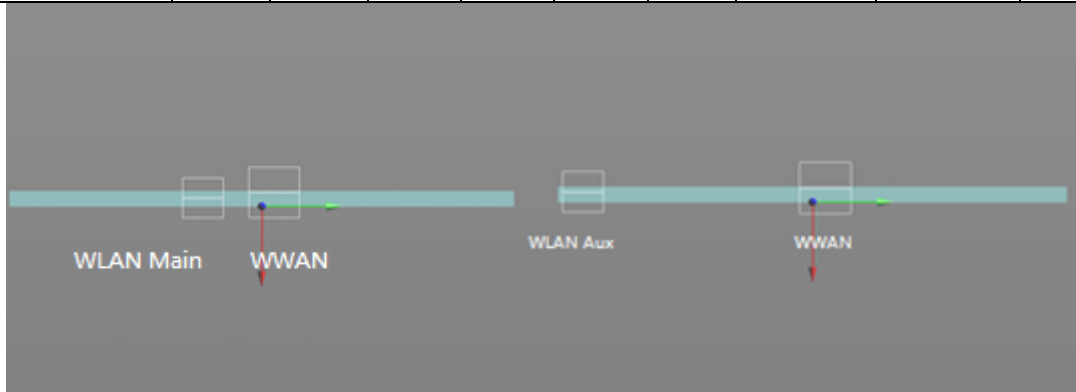
Simultaneous Transmission Scenario				WWAN+Main+Aux						
Item	Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (cm)	SPLSR	Result
				x	y	z				
42	LTE Band 7	Back side	0.523	9.20	5.24	-0.40	1.417	8.53	0.020	SPLSR ≤ 0.04, Not required
	5GHz Main		0.894	9.52	-3.28	-0.20				
	LTE Band 7	Back side	0.523	9.20	5.24	-0.40	1.329	16.69	0.009	SPLSR ≤ 0.04, Not required
	5GHz Aux		0.806	9.68	-11.44	-0.21				
	5GHz Main	Back side	0.894	9.52	-3.28	-0.2	1.7	8.162	0.028	SPLSR ≤ 0.04, Not required
	5GHz Aux		0.806	9.68	-11.44	-0.21				



Simultaneous Transmission Scenario				WWAN+Main+BT						
Item	Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (cm)	SPLSR	Result
				x	y	z				
43	LTE Band 7	Top side	0.509	-0.94	0.76	-0.58	1.524	4.74	0.039	SPLSR ≤ 0.04, Not required
	5GHz Main		1.015	-0.60	-3.96	-0.38				
	LTE Band 7	Top side	0.509	-0.94	0.76	-0.58	0.769	13.24	0.005	SPLSR ≤ 0.04, Not required
	Bluetooth		0.260	-0.70	-12.48	-0.35				
	5GHz Main	Top side	1.015	-0.60	-3.96	-0.38	1.275	8.52	0.017	SPLSR ≤ 0.04, Not required
	Bluetooth		0.260	-0.70	-12.48	-0.35				



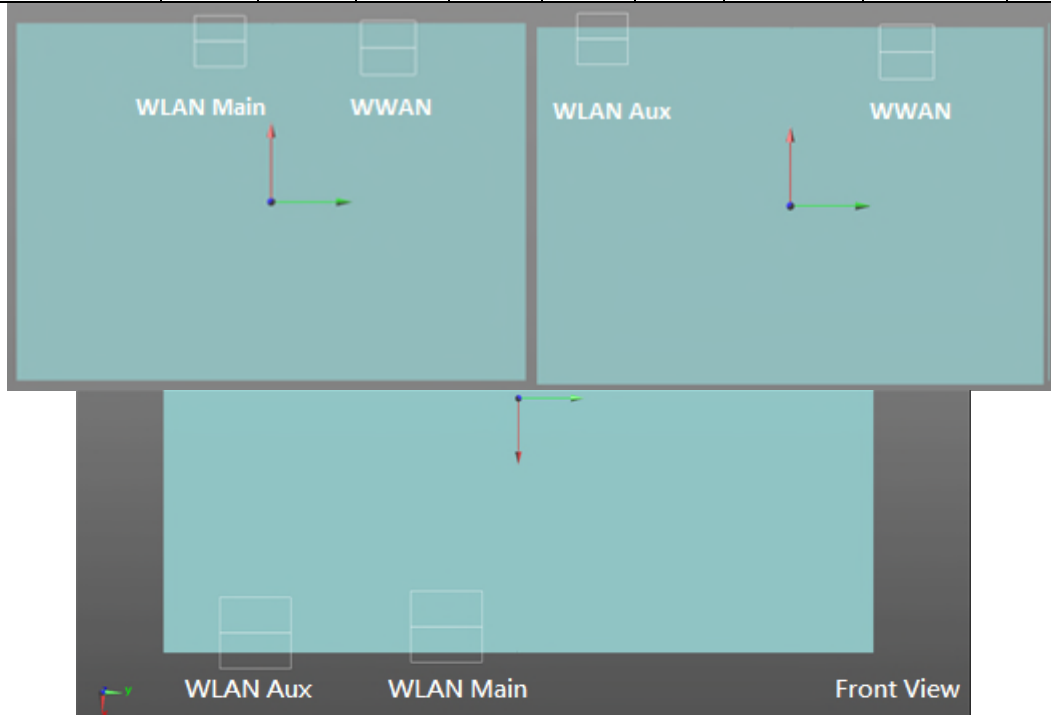
Simultaneous Transmission Scenario				WWAN+Main+Aux						
Item	Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (cm)	SPLSR	Result
				x	y	z				
44	LTE Band 7	Top side	0.509	-0.94	0.76	-0.58	1.524	4.74	0.039	SPLSR ≤ 0.04, Not required
	5GHz Main		1.015	-0.60	-3.96	-0.38				
	LTE Band 7	Top side	0.509	-0.94	0.76	-0.58	1.739	14.02	0.016	SPLSR ≤ 0.04, Not required
	5GHz Aux		1.230	-0.74	-13.26	-0.38				
	5GHz Main	Top side	1.015	-0.60	-3.96	-0.38	2.245	9.30	0.036	SPLSR ≤ 0.04, Not required
	5GHz Aux		1.230	-0.74	-13.26	-0.38				



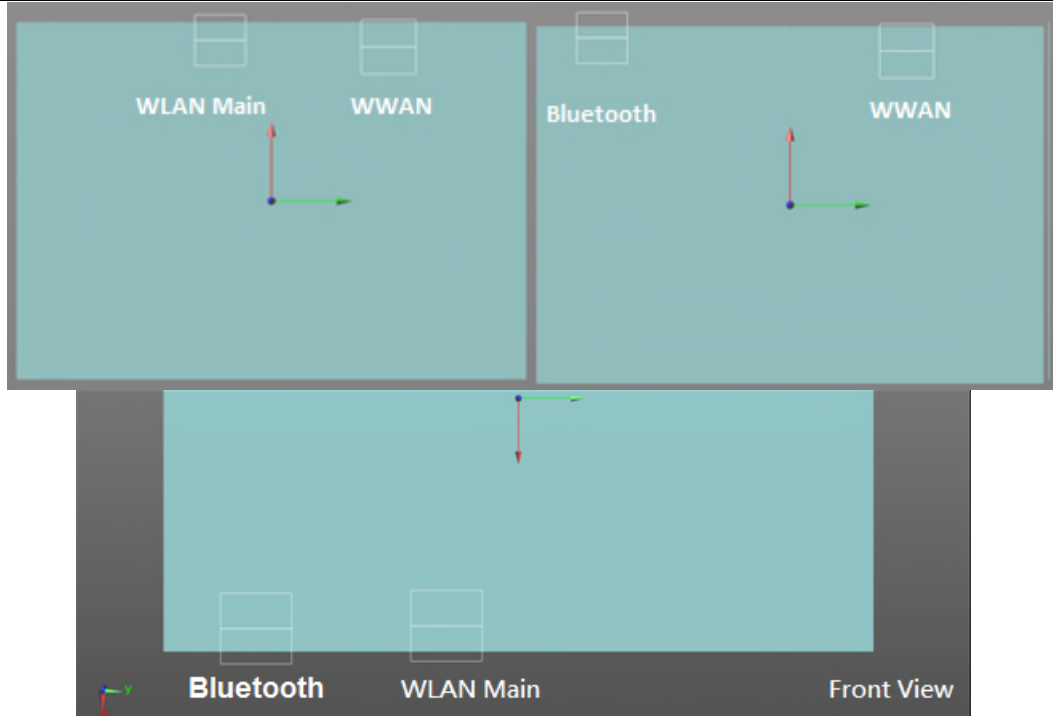
Sum of the SAR for LTE Band 12 + WLAN + Bluetooth

No.	Test Position	Simultaneous Transmission Scenario						Σ SAR 1g (W/kg)	SPLSR (Yes/No)	Item
		LTE Band 12	2.4GHz		5GHz		Bluetooth			
			Main	Aux	Main	Aux				
8	Back side	1.251	0.869	1.010	-	-	-	3.13	Yes	
		1.251	0.869					2.120	0.031	45
		1.251		1.010				2.261	0.018	
			0.869	1.010				1.879	0.030	
		1.251	0.869	-	-	-	0.440	2.56	Yes	
		1.251	0.869					2.120	0.031	46
		1.251					0.440	1.691	0.012	
			0.869				0.440	1.309	0.018	
		1.251	-	-	0.894	-	0.440	2.585	Yes	
		1.251			0.894			2.145	0.030	47
		1.251					0.440	1.691	0.012	
					0.894		0.440	1.334	0.019	
	1.251	-	-	0.894	0.806	-	2.951	Yes		
	1.251			0.894			2.145	0.030	48	
	1.251				0.806		2.057	0.016		
				0.894	0.806		1.700	0.028		
	0.736	0.349	0.610	-	-	-	1.695	Yes		
	0.736	0.349					1.085	0.009	49	
	0.736		0.610				1.346	0.007		
		0.349	0.610				0.959	0.011		
	0.736	0.349	-	-	-	0.260	1.345	No		
	0.736	-	-	1.015	-	0.260	2.011	Yes		
	0.736			1.015			1.751	0.018	50	
	0.736					0.260	0.996	0.005		
				1.015		0.260	1.275	0.017		
	0.736	-	-	1.015	1.230	-	2.981	Yes		
	0.736			1.015			1.751	0.018	51	
	0.736				1.230		1.966	0.012		
				1.015	1.230		2.245	0.036		
	0.160	0.400	0.400	-	-	-	0.96	No		-
0.160	0.400	-	-	-	0.400	0.96	No	-		
0.160	-	-	0.400	-	0.400	0.96	No	-		
0.160	-	-	0.400	0.400	-	0.96	No	-		
0.400	0.400	0.237	-	-	-	1.037	No	-		
0.400	0.400	-	-	-	0.107	0.907	No	-		
0.400	-	-	0.400	-	0.107	0.907	No	-		
0.400	-	-	0.400	0.222	-	1.022	No	-		

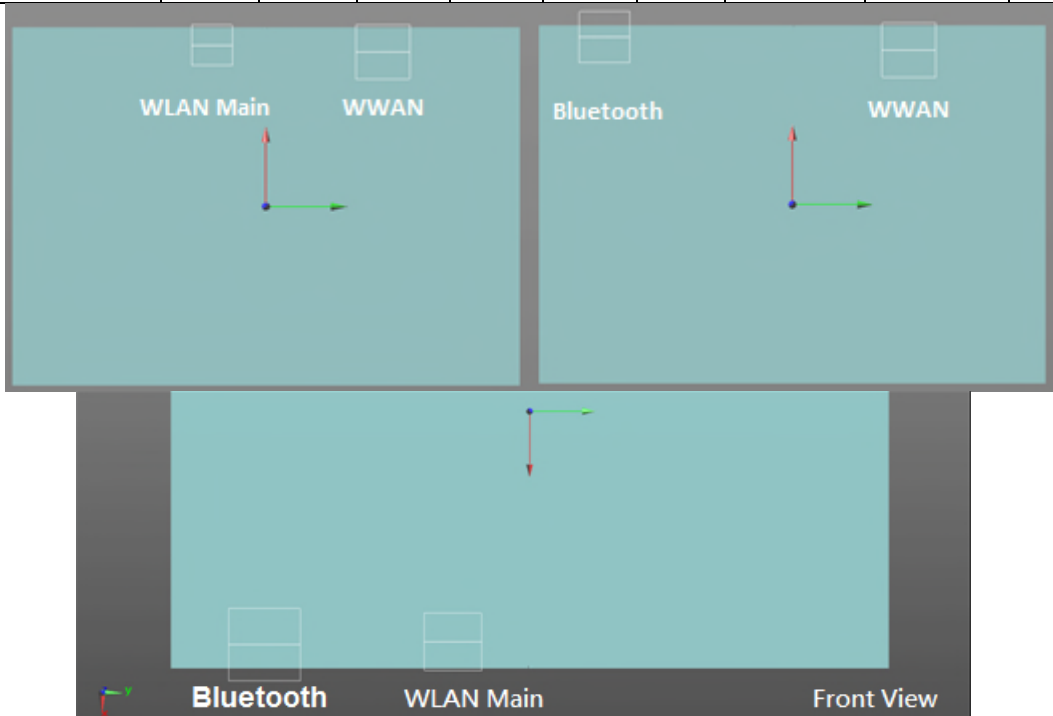
Simultaneous Transmission Scenario				WWAN+Main+Aux						
Item	Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (cm)	SPLSR	Result
				x	y	z				
45	LTE Band 12	Back side	1.251	9.36	7.06	-0.29	2.120	9.81	0.031	SPLSR ≤ 0.04, Not required
	2.4GHz Main		0.869	9.70	-2.74	-0.24				
	LTE Band 12	Back side	1.251	9.36	7.06	-0.29	2.261	18.49	0.018	SPLSR ≤ 0.04, Not required
	2.4GHz Aux		1.010	10.06	-11.42	-0.17				
	2.4GHz Main	Back side	0.869	9.70	-2.74	-0.24	1.879	8.688	0.030	SPLSR ≤ 0.04, Not required
	2.4GHz Aux		1.010	10.06	-11.42	-0.17				



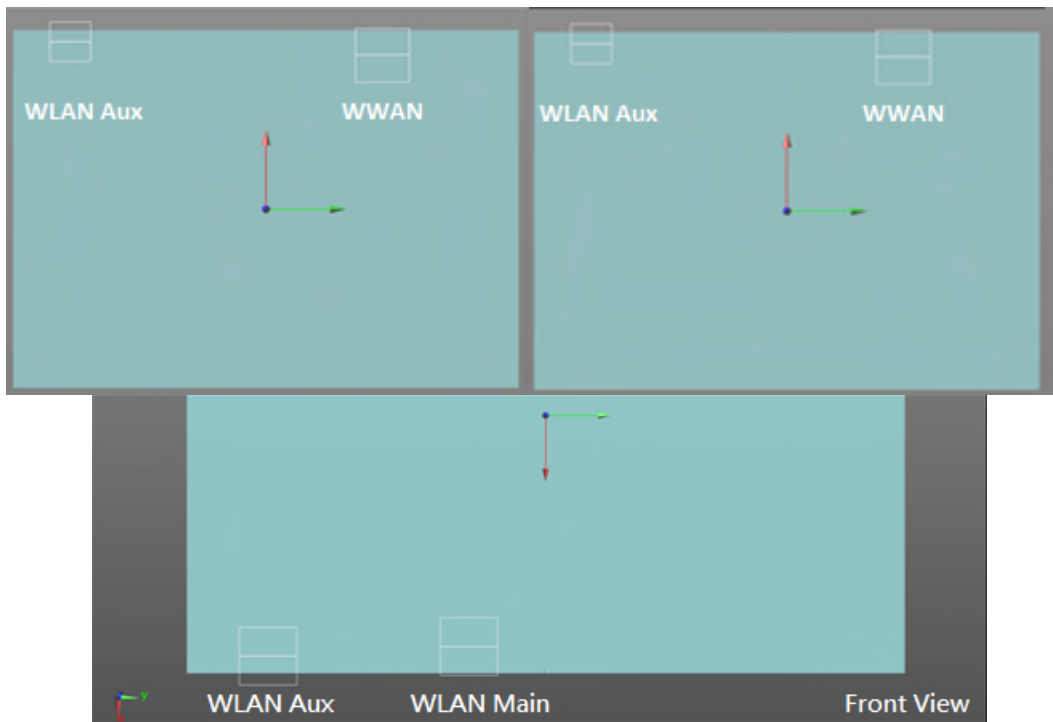
Simultaneous Transmission Scenario				WWAN+Main+BT						
Item	Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (cm)	SPLSR	Result
				x	y	z				
46	LTE Band 12	Back side	1.251	9.36	7.06	-0.29	2.120	9.81	0.031	SPLSR ≤ 0.04, Not required
	2.4GHz Main		0.869	9.70	-2.74	-0.24				
	LTE Band 12	Back side	1.251	9.36	7.06	-0.29	1.691	18.25	0.012	SPLSR ≤ 0.04, Not required
	Bluetooth		0.440	9.82	-11.18	-0.19				
2.4GHz Main	Back side	0.869	9.70	-2.74	-0.24	1.309	8.44	0.018	SPLSR ≤ 0.04, Not required	
Bluetooth		0.440	9.82	-11.18	-0.19					



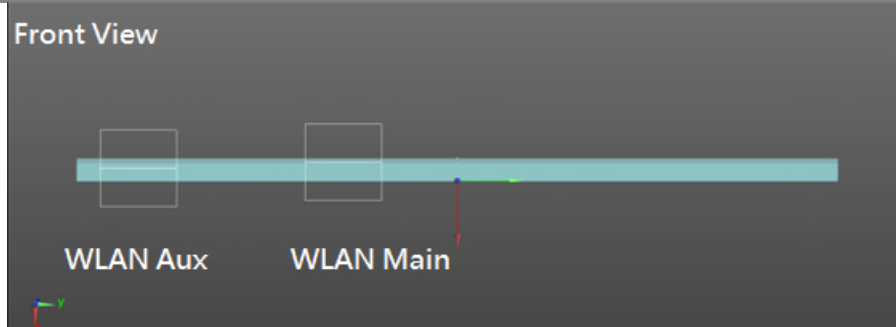
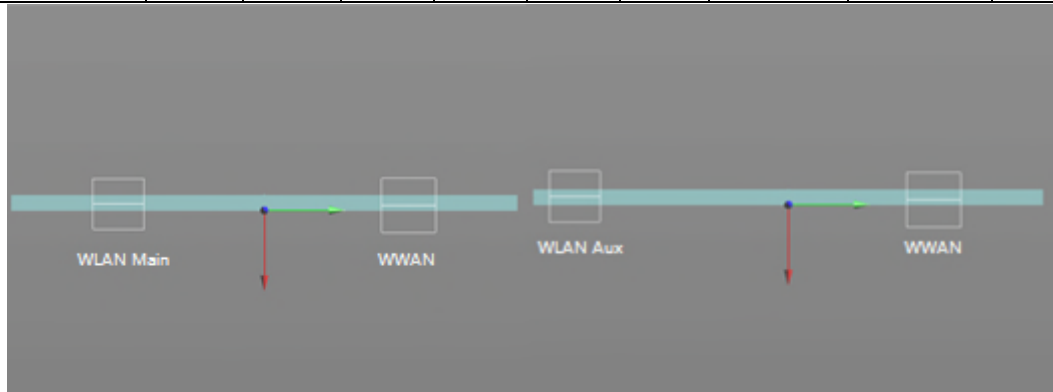
Simultaneous Transmission Scenario				WWAN+Main+BT						
Item	Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (cm)	SPLSR	Result
				x	y	z				
47	LTE Band 12	Back side	1.251	9.36	7.06	-0.29	2.145	10.034	0.030	SPLSR ≤ 0.04, Not required
	5GHz Main		0.894	9.52	-3.28	-0.20				
	LTE Band 12	Back side	1.251	9.36	7.06	-0.29	1.691	18.25	0.012	SPLSR ≤ 0.04, Not required
	Bluetooth		0.440	9.82	-11.18	-0.19				
	5GHz Main	Back side	0.894	9.52	-3.28	-0.2	1.334	7.906	0.019	SPLSR ≤ 0.04, Not required
	Bluetooth		0.440	9.82	-11.18	-0.19				



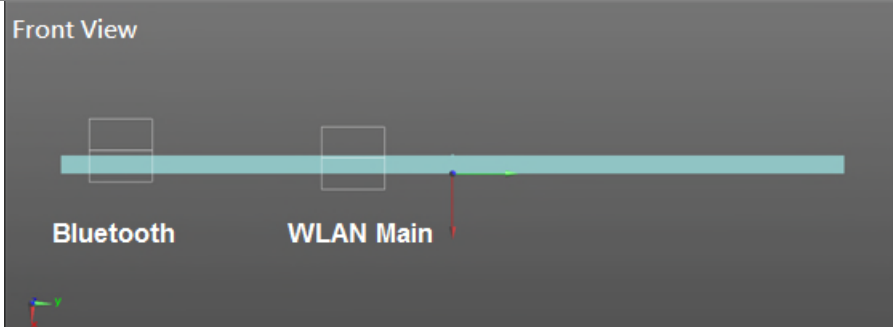
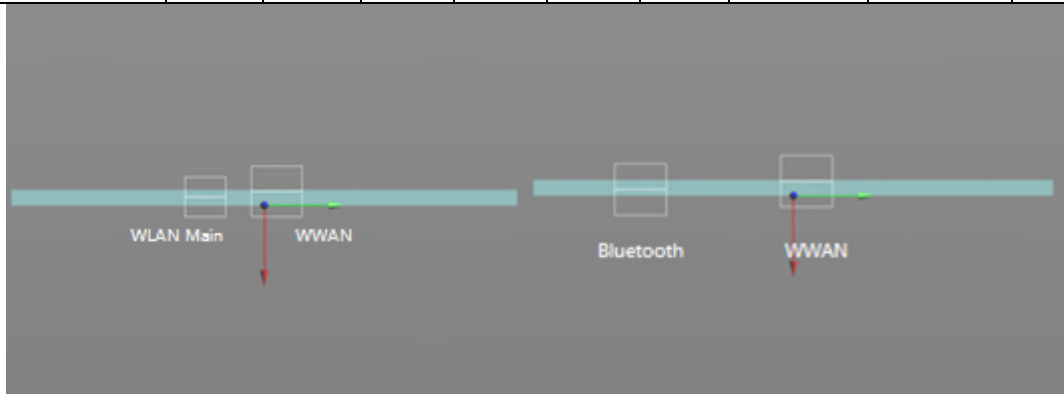
Simultaneous Transmission Scenario				WWAN+Main+Aux						
Item	Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (cm)	SPLSR	Result
				x	y	z				
48	LTE Band 12	Back side	1.251	9.36	7.06	-0.29	2.145	10.34	0.030	SPLSR ≤ 0.04, Not required
	5GHz Main		0.894	9.52	-3.28	-0.20				
	LTE Band 12	Back side	1.251	9.36	7.06	-0.29	2.057	18.50	0.016	SPLSR ≤ 0.04, Not required
	5GHz Aux		0.806	9.68	-11.44	-0.21				
	5GHz Main	Back side	0.894	9.52	-3.28	-0.2	1.7	8.162	0.028	SPLSR ≤ 0.04, Not required
	5GHz Aux		0.806	9.68	-11.44	-0.21				



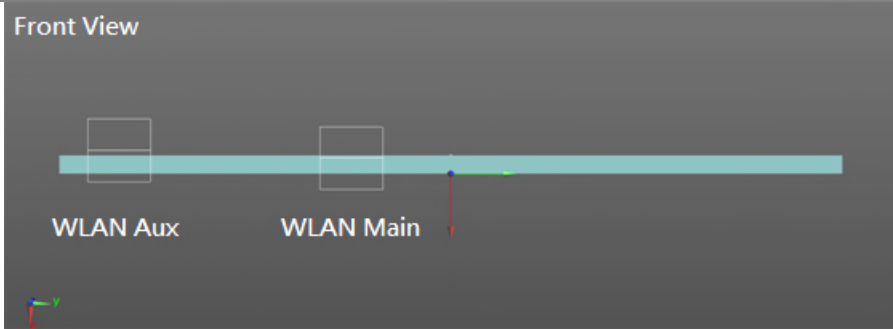
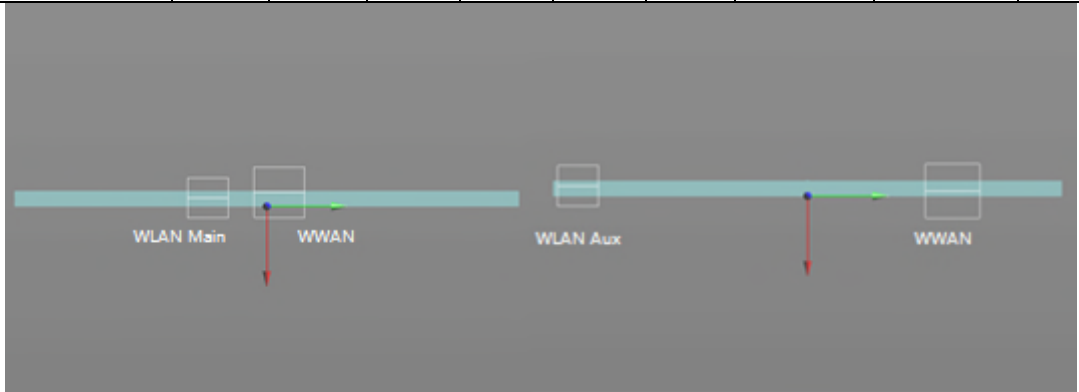
Simultaneous Transmission Scenario				WWAN+Main+Aux						
Item	Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (cm)	SPLSR	Result
				x	y	z				
49	LTE Band 12	Top side	0.736	-0.46	8.55	-0.49	1.085	12.73	0.009	SPLSR ≤ 0.04, Not required
	2.4GHz Main		0.349	-0.74	-4.18	-0.51				
	LTE Band 12	Top side	0.736	-0.46	8.55	-0.49	1.346	20.91	0.007	SPLSR ≤ 0.04, Not required
	2.4GHz Aux		0.610	-0.50	-12.36	-0.37				
	2.4GHz Main	Top side	0.349	-0.74	-4.18	-0.51	0.959	8.19	0.011	SPLSR ≤ 0.04, Not required
	2.4GHz Aux		0.610	-0.50	-12.36	-0.37				



Simultaneous Transmission Scenario				WWAN+Main+BT						
Item	Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (cm)	SPLSR	Result
				x	y	z				
50	LTE Band 12	Top side	0.736	-0.46	8.55	-0.49	1.751	12.51	0.018	SPLSR ≤ 0.04, Not required
	5GHz Main		1.015	-0.60	-3.96	-0.38				
	LTE Band 12	Top side	0.736	-0.46	8.55	-0.49	0.996	21.03	0.005	SPLSR ≤ 0.04, Not required
	Bluetooth		0.260	-0.70	-12.48	-0.35				
	5GHz Main	Top side	1.015	-0.60	-3.96	-0.38	1.275	8.52	0.017	SPLSR ≤ 0.04, Not required
	Bluetooth		0.260	-0.70	-12.48	-0.35				



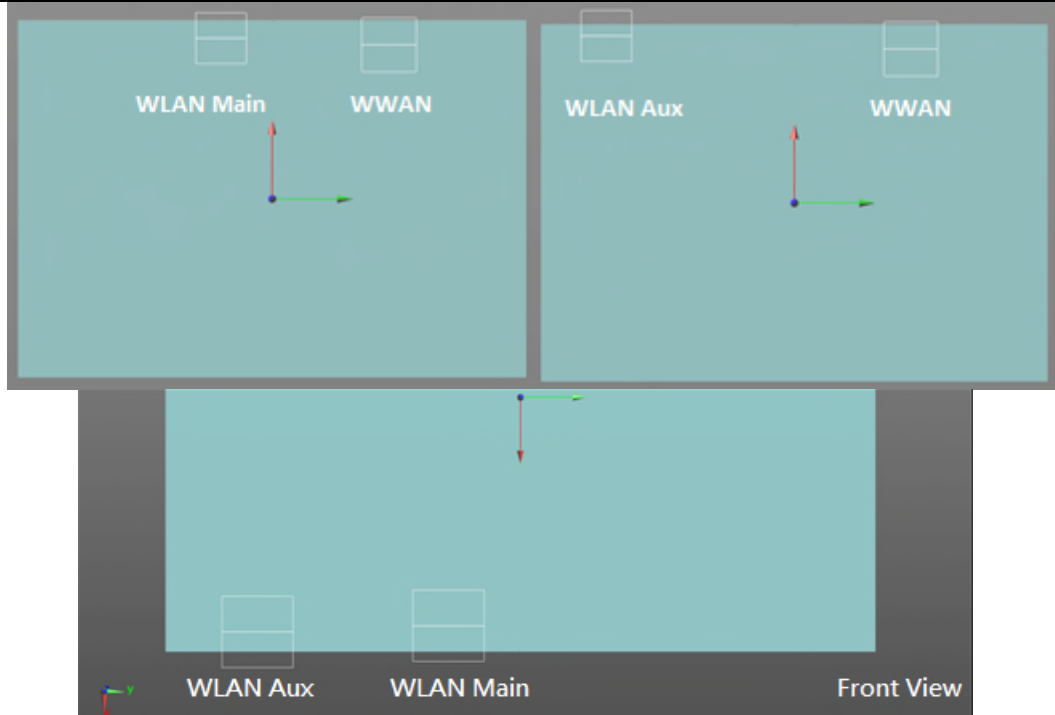
Simultaneous Transmission Scenario				WWAN+Main+Aux						
Item	Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (cm)	SPLSR	Result
				x	y	z				
51	LTE Band 12	Top side	0.736	-0.46	8.55	-0.49	1.751	12.51	0.018	SPLSR ≤ 0.04, Not required
	5GHz Main		1.015	-0.60	-3.96	-0.38				
	LTE Band 12	Top side	0.736	-0.46	8.55	-0.49	1.966	21.81	0.012	SPLSR ≤ 0.04, Not required
	5GHz Aux		1.230	-0.74	-13.26	-0.38				
	5GHz Main	Top side	1.015	-0.60	-3.96	-0.38	2.245	9.30	0.036	SPLSR ≤ 0.04, Not required
	5GHz Aux		1.230	-0.74	-13.26	-0.38				



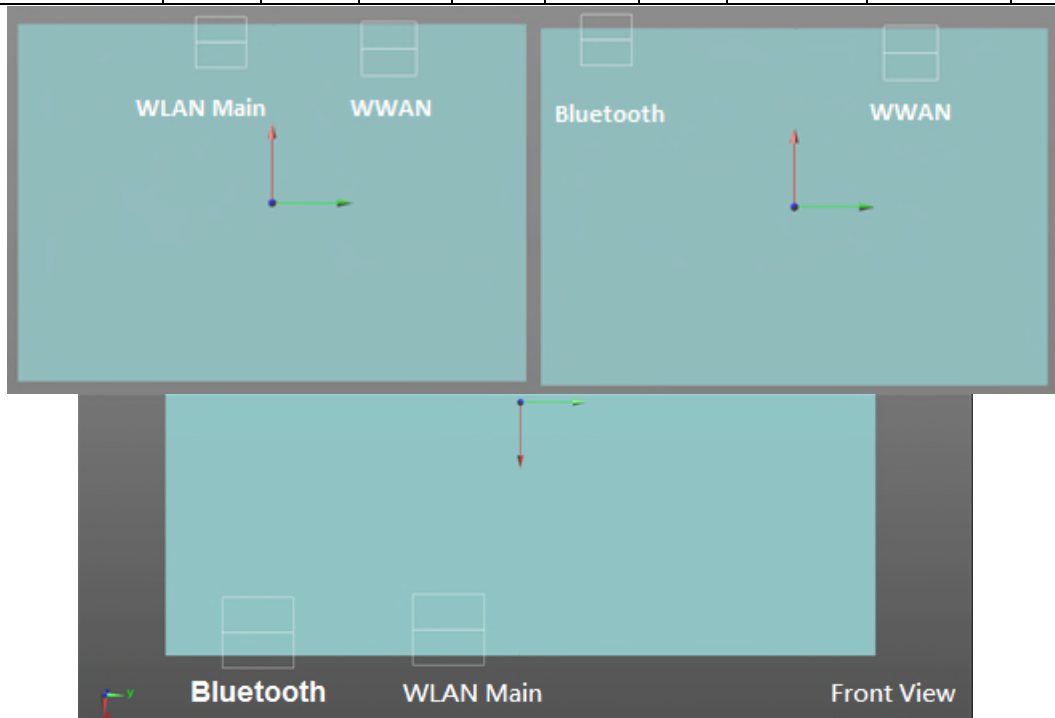
Sum of the SAR for LTE Band 17 + WLAN + Bluetooth

No.	Test Position	Simultaneous Transmission Scenario						Σ SAR 1g (W/kg)	SPLSR (Yes/No)	Item	
		LTE Band 17	2.4GHz		5GHz		Bluetooth				
			Main	Aux	Main	Aux					
9	Back side	1.269	0.869	1.010	-	-	-	3.148	Yes	52	
		1.269	0.869					2.138	0.031		
		1.269		1.010				2.279	0.018		
			0.869	1.010				1.879	0.030		
		1.269	0.869	-	-	-	0.440	2.578	Yes	53	
		1.269	0.869					2.138	0.031		
		1.269					0.440	1.709	0.012		
			0.869				0.440	1.309	0.018		
		1.269	-	-	0.894	-	0.440	2.603	Yes	54	
		1.269			0.894			2.163	0.030		
		1.269					0.440	1.709	0.012		
					0.894		0.440	1.334	0.019		
	1.269	-	-	0.894	0.806	-	2.969	Yes	55		
	1.269			0.894			2.163	0.030			
	1.269				0.806		2.075	0.016			
				0.894	0.806		1.700	0.028			
	Top side	Top side	0.724	0.349	0.610	-	-	-	1.683	Yes	56
			0.724	0.349					1.073	0.009	
			0.724		0.610				1.334	0.007	
				0.349	0.610				0.959	0.011	
		0.724	0.349	-	-	-	0.260	1.333	No	57	
		0.724	-	-	1.015	-	0.260	1.999	Yes		
		0.724			1.015			1.739	0.018		
		0.724					0.260	0.984	0.005		
				1.015		0.260	1.275	0.017	58		
0.724		-	-	1.015	1.230	-	2.969	Yes			
0.724				1.015			1.739	0.018			
0.724					1.230		1.954	0.012			
			1.015	1.230		2.245	0.036				
Right side	Right side	0.156	0.400	0.400	-	-	-	0.956	No	-	
		0.156	0.400	-	-	-	0.400	0.956	No	-	
		0.156	-	-	0.400	-	0.400	0.956	No	-	
		0.156	-	-	0.400	0.400	-	0.956	No	-	
Left side	Left side	0.400	0.400	0.237	-	-	-	1.037	No	-	
		0.400	0.400	-	-	-	0.107	0.907	No	-	
		0.400	-	-	0.400	-	0.107	0.907	No	-	
		0.400	-	-	0.400	0.222	-	1.022	No	-	

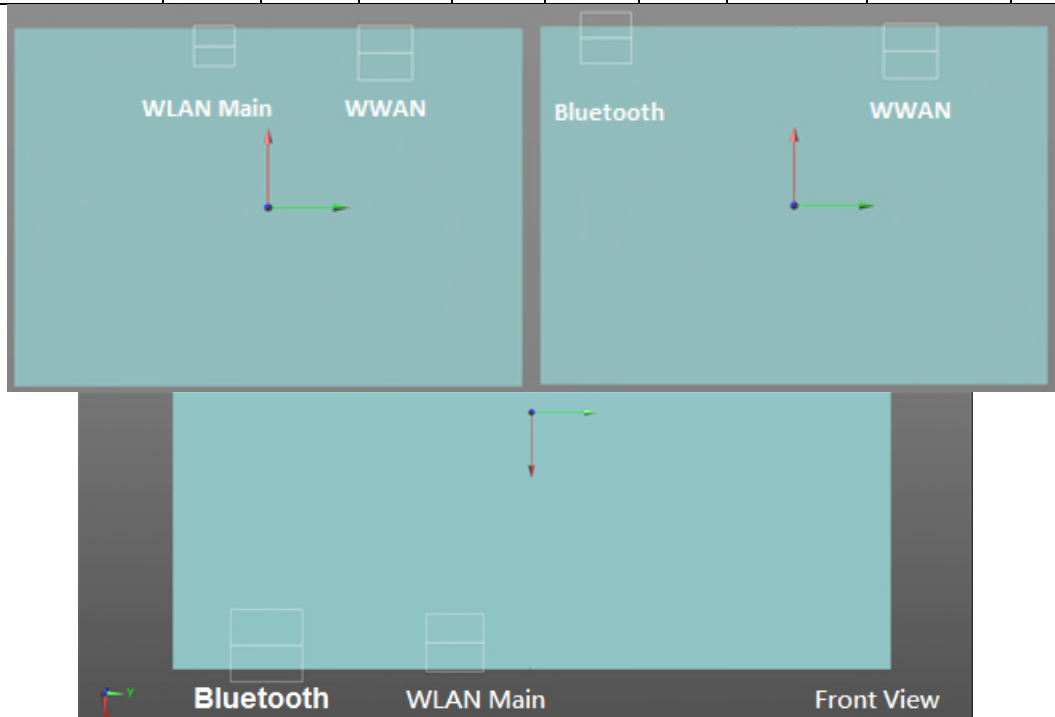
Simultaneous Transmission Scenario				WWAN+Main+Aux						
Item	Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (cm)	SPLSR	Result
				x	y	z				
52	LTE Band 17	Back side	1.269	9.36	7.06	-0.29	2.138	9.81	0.031	SPLSR ≤ 0.04, Not required
	2.4GHz Main		0.869	9.70	-2.74	-0.24				
	LTE Band 17	Back side	1.269	9.36	7.06	-0.29	2.279	18.49	0.018	SPLSR ≤ 0.04, Not required
	2.4GHz Aux		1.010	10.06	-11.42	-0.17				
	2.4GHz Main	Back side	0.869	9.70	-2.74	-0.24	1.879	8.688	0.030	SPLSR ≤ 0.04, Not required
	2.4GHz Aux		1.010	10.06	-11.42	-0.17				



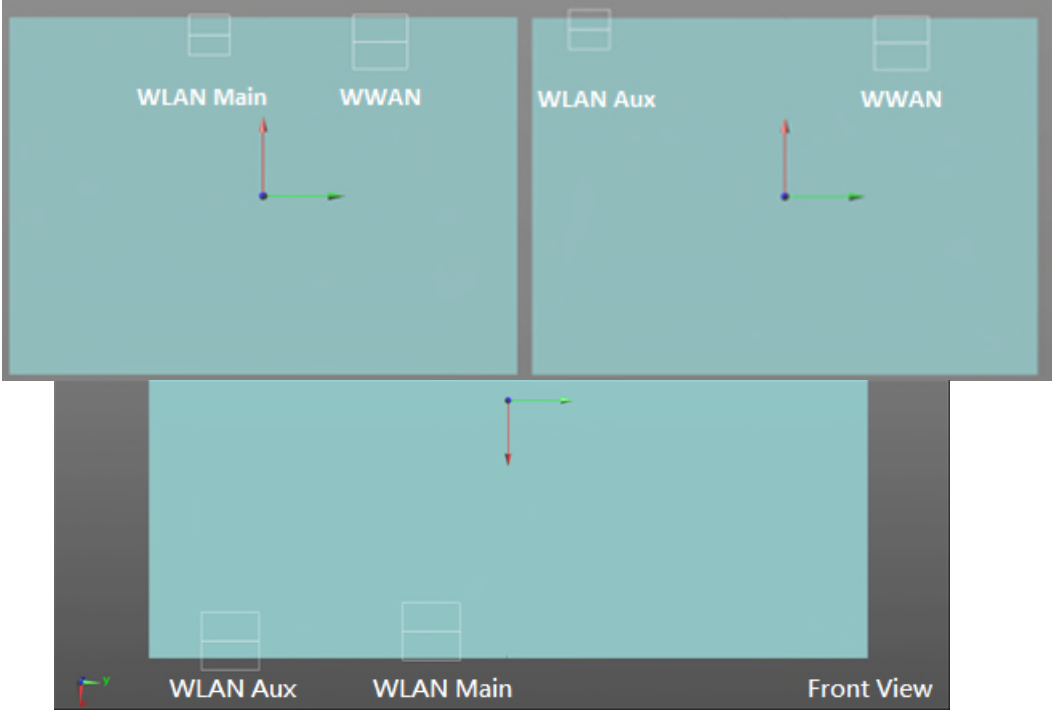
Simultaneous Transmission Scenario				WWAN+Main+BT						
Item	Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (cm)	SPLSR	Result
				x	y	z				
53	LTE Band 17	Back side	1.269	9.36	7.06	-0.29	2.138	9.81	0.031	SPLSR ≤ 0.04, Not required
	2.4GHz Main		0.869	9.70	-2.74	-0.24				
	LTE Band 17	Back side	1.269	9.36	7.06	-0.29	1.709	18.25	0.012	SPLSR ≤ 0.04, Not required
	Bluetooth		0.440	9.82	-11.18	-0.19				
	2.4GHz Main	Back side	0.869	9.70	-2.74	-0.24	1.309	8.44	0.018	SPLSR ≤ 0.04, Not required
	Bluetooth		0.440	9.82	-11.18	-0.19				



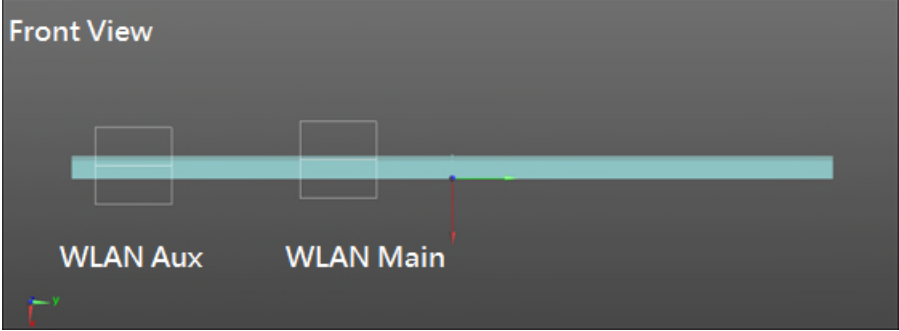
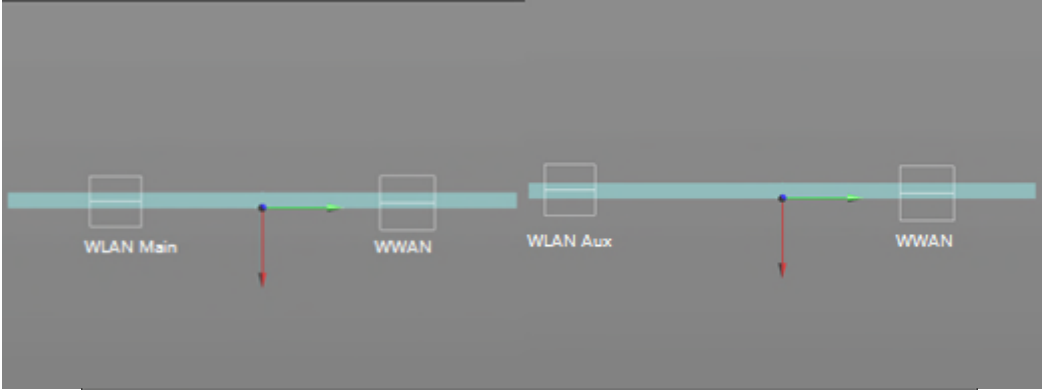
Simultaneous Transmission Scenario				WWAN+Main+BT						
Item	Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (cm)	SPLSR	Result
				x	y	z				
54	LTE Band 17	Back side	1.269	9.36	7.06	-0.29	2.163	10.034	0.030	SPLSR ≤ 0.04, Not required
	5GHz Main		0.894	9.52	-3.28	-0.20				
	LTE Band 17	Back side	1.269	9.36	7.06	-0.29	1.709	18.25	0.012	SPLSR ≤ 0.04, Not required
	Bluetooth		0.440	9.82	-11.18	-0.19				
	5GHz Main	Back side	0.894	9.52	-3.28	-0.2	1.334	7.906	0.019	SPLSR ≤ 0.04, Not required
	Bluetooth		0.440	9.82	-11.18	-0.19				



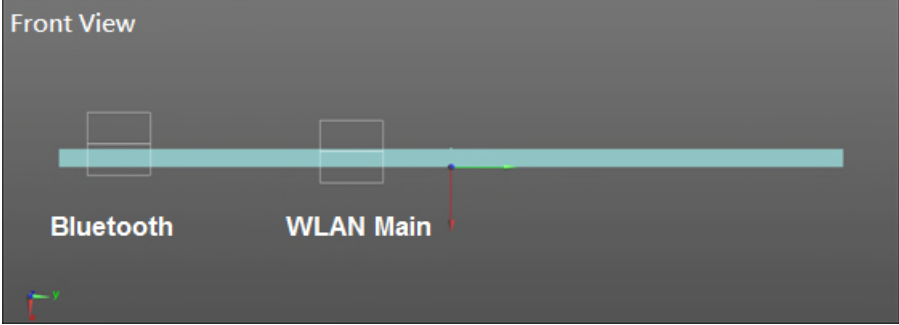
Simultaneous Transmission Scenario				WWAN+Main+Aux						
Item	Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (cm)	SPLSR	Result
				x	y	z				
55	LTE Band 17	Back side	1.269	9.36	7.06	-0.29	2.163	10.34	0.030	SPLSR ≤ 0.04, Not required
	5GHz Main		0.894	9.52	-3.28	-0.20				
	LTE Band 17	Back side	1.269	9.36	7.06	-0.29	2.075	18.50	0.016	SPLSR ≤ 0.04, Not required
	5GHz Aux		0.806	9.68	-11.44	-0.21				
	5GHz Main	Back side	0.894	9.52	-3.28	-0.2	1.7	8.162	0.028	SPLSR ≤ 0.04, Not required
	5GHz Aux		0.806	9.68	-11.44	-0.21				



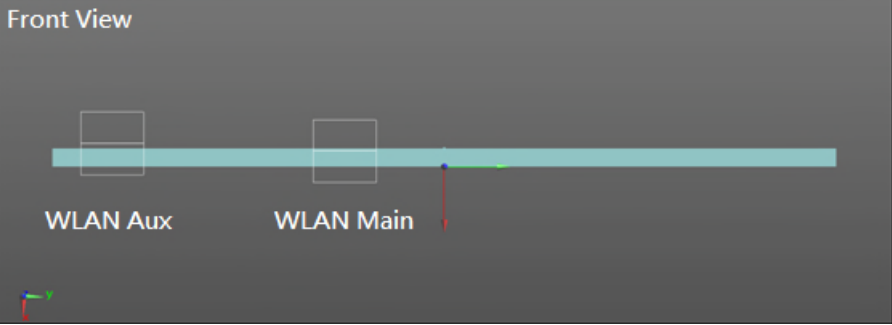
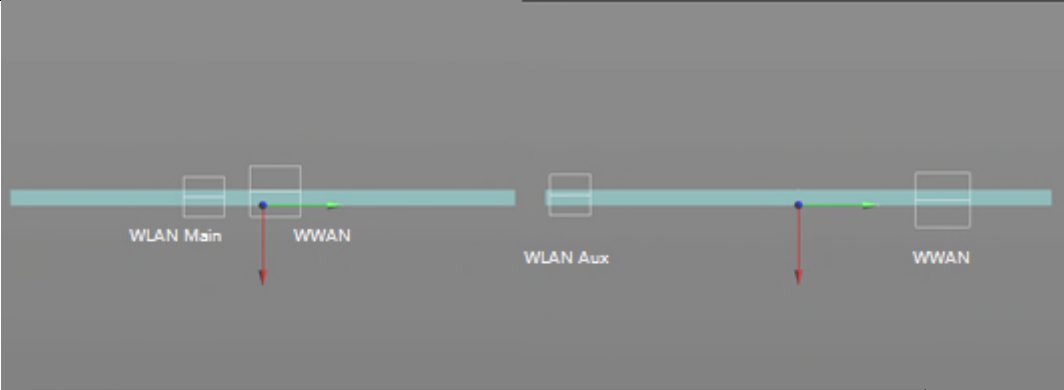
Simultaneous Transmission Scenario			WWAN+Main+Aux							
Item	Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (cm)	SPLSR	Result
				x	y	z				
56	LTE Band 17	Top side	0.724	-0.46	8.55	-0.49	1.073	12.73	0.009	SPLSR ≤ 0.04, Not required
	2.4GHz Main		0.349	-0.74	-4.18	-0.51				
	LTE Band 17	Top side	0.724	-0.46	8.55	-0.49	1.334	20.91	0.007	SPLSR ≤ 0.04, Not required
	2.4GHz Aux		0.610	-0.50	-12.36	-0.37				
	2.4GHz Main	Top side	0.349	-0.74	-4.18	-0.51	0.959	8.19	0.011	SPLSR ≤ 0.04, Not required
	2.4GHz Aux		0.610	-0.50	-12.36	-0.37				



Simultaneous Transmission Scenario				WWAN+Main+Aux						
Item	Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (cm)	SPLSR	Result
				x	y	z				
57	LTE Band 17	Top side	0.724	-0.46	8.55	-0.487	1.739	12.51	0.018	SPLSR ≤ 0.04, Not required
	5GHz Main		1.015	-0.6	-3.96	-0.379				
	LTE Band 17	Top side	0.724	-0.46	8.55	-0.487	0.984	21.03	0.005	SPLSR ≤ 0.04, Not required
	Bluetooth		0.260	-0.7	-12.48	-0.346				
	5GHz Main	Top side	1.015	-0.60	-3.96	-0.38	1.275	8.52	0.017	SPLSR ≤ 0.04, Not required
	Bluetooth		0.260	-0.70	-12.48	-0.35				



Simultaneous Transmission Scenario				WWAN+Main+Aux						
Item	Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (cm)	SPLSR	Result
				x	y	z				
58	LTE Band 17	Top side	0.724	-0.46	8.55	-0.49	1.739	12.51	0.018	SPLSR ≤ 0.04, Not required
	5GHz Main		1.015	-0.60	-3.96	-0.38				
	LTE Band 17	Top side	0.724	-0.46	8.55	-0.49	1.954	21.81	0.012	SPLSR ≤ 0.04, Not required
	5GHz Aux		1.230	-0.74	-13.26	-0.38				
	5GHz Main	Top side	1.015	-0.60	-3.96	-0.38	2.245	9.30	0.036	SPLSR ≤ 0.04, Not required
	5GHz Aux		1.230	-0.74	-13.26	-0.38				



7. Instruments List

Manufacturer	Device	Type	Serial number	Date of last calibration	Date of next calibration
SPEAG	Dosimetric E-Field Probe	EX3DV4	3770	Apr.27.2017	Apr.26.2018
SPEAG	System Validation Dipole	D750V2	1015	Aug.21.2017	Aug.20.2018
		D835V2	4d063	Aug.21.2017	Aug.20.2018
		D1750V2	1008	Aug.21.2017	Aug.20.2018
		D1900V2	5d173	May.31.2017	May.30.2018
		D2600V2	1005	Jan.17,2018	Jan.16,2019
SPEAG	Data acquisition Electronics	DAE4	856	Apr.28.2017	Apr.27.2018
SPEAG	Software	DASY 52 V52.8.8	N/A	Calibration not required	Calibration not required
SPEAG	Phantom	ELI	N/A	Calibration not required	Calibration not required
Agilent	Dielectric Probe Kit	85070E	MY44300677	Calibration not required	Calibration not required
SPEAG	Vector Network Analyzer and Vector Reflect meter	DAKS VNA R140	0040513	Jan.18,2018	Jan.17,2019
	Dielectric Assessment Kit	DAKS-3.5	1053	Jan.16,2018	Jan.15,2019
Agilent	Dual-directional coupler	772D	MY46151242	Jul.11,2017	Jul.10,2018
		778D	MY48220468	Aug.28,2017	Aug.27,2018
Agilent	RF Signal Generator	N5181A	MY50144143	Mar.14,2018	Mar.13,2019
Agilent	Power Meter	E4417A	MY52240003	Dec.21,2017	Dec.20,2018
Agilent	Power Sensor	E9301H	MY52200003	Dec.21,2017	Dec.20,2018
TECPEL	Digital thermometer	DTM-303A	TP130075	Mar.09,2018	Mar.08,2019

Manufacturer	Device	Type	Serial number	Date of last calibration	Date of next calibration
Anritsu	Radio Communication Test	MT8820C	6201061049	Apr.08,2017	Apr.07,2018
			6201061014	Mar.14,2018	Mar.13,2019

8. Overall Uncertainty Budget

Measurement Uncertainty evaluation template for DUT SAR test (3-6G)

A	C	D	e		f	g	h=c * f / e	i=c * g / e	k
Source of Uncertainty	Tolerance/ Uncertainty	Probability Distributio	Div	Div Value	ci (1g)	ci (10g)	Standard uncertainty	Standard uncertainty	vi, or Veff
Measurement system									
Probe calibration	6.55%	N	1	1	1	1	6.55%	6.55%	∞
<i>Isotropy, Axial</i>	3.50%	R	√3	1.732	1	1	2.02%	2.02%	∞
<i>Isotropy, Hemispherical</i>	9.60%	R	√3	1.732	1	1	5.54%	5.54%	∞
Modulation Response	2.40%	R	√3	1.732	1	1	1.40%	1.40%	∞
Boundary Effect	1.00%	R	√3	1.732	1	1	0.58%	0.58%	∞
Linearity	4.70%	R	√3	1.732	1	1	2.71%	2.71%	∞
Detection Limits	1.00%	R	√3	1.732	1	1	0.58%	0.58%	∞
Readout Electronics	0.30%	N	1	1	1	1	0.30%	0.30%	∞
Response time	0.80%	R	√3	1.732	1	1	0.46%	0.46%	∞
Integration Time	2.60%	R	√3	1.732	1	1	1.50%	1.50%	∞
Measurement drift (class A evaluation)	1.75%	R	√3	1.732	1	1	1.01%	1.01%	∞
RF ambient condition - noise	3.00%	R	√3	1.732	1	1	1.73%	1.73%	∞
RF ambient conditions - reflections	3.00%	R	√3	1.732	1	1	1.73%	1.73%	∞
Probe positioner Mechanical restrictions	0.40%	R	√3	1.732	1	1	0.23%	0.23%	∞
Probe Positioning with respect to phantom shell	2.90%	R	√3	1.732	1	1	1.67%	1.67%	∞
Post-processing	1.00%	R	√3	1.732	1	1	0.58%	0.58%	∞
Max SAR Eval	1.00%	R	√3	1.732	1	1	0.58%	0.58%	∞
Test Sample related									
Test sample positioning	2.90%	N	1	1	1	1	2.90%	2.90%	M-1
Device Holder Uncertainty	3.60%	N	1	1	1	1	3.60%	3.60%	M-1
Drift of output power	5.00%	R	√3	1.732	1	1	2.89%	2.89%	∞
Phantom and Setup									
Phantom Uncertainty	4.00%	R	√3	1.732	1	1	2.31%	2.31%	∞
Liquid permittivity (mea.)	0.86%	N	1	1	0.64	0.43	0.55%	0.37%	M
Liquid Conductivity (mea.)	2.12%	N	1	1	0.6	0.49	1.27%	1.04%	M
Combined standard uncertainty		RSS					11.80%	11.76%	
Expant uncertainty (95% confidence interval), K=2							23.60%	23.52%	

Measurement Uncertainty evaluation template for DUT SAR test (0.3-3G)

A	C	D	e		f	g	h=c * f / e	i=c * g / e	k
Source of Uncertainty	Tolerance/ Uncertainty	Probability Distributio	Div	Div Value	ci (1g)	ci (10g)	Standard uncertainty	Standard uncertainty	vi, or Veff
Measurement system									
Probe calibration	6.00%	N	1	1	1	1	6.00%	6.00%	∞
Isotropy, Axial	3.50%	R	$\sqrt{3}$	1.732	1	1	2.02%	2.02%	∞
Isotropy, Hemispherical	9.60%	R	$\sqrt{3}$	1.732	1	1	5.54%	5.54%	∞
Modulation Response	2.40%	R	$\sqrt{3}$	1.732	1	1	1.40%	1.40%	∞
Boundary Effect	1.00%	R	$\sqrt{3}$	1.732	1	1	0.58%	0.58%	∞
Linearity	4.70%	R	$\sqrt{3}$	1.732	1	1	2.71%	2.71%	∞
Detection Limits	1.00%	R	$\sqrt{3}$	1.732	1	1	0.58%	0.58%	∞
Readout Electronics	0.30%	N	1	1	1	1	0.30%	0.30%	∞
Response time	0.80%	R	$\sqrt{3}$	1.732	1	1	0.46%	0.46%	∞
Integration Time	2.60%	R	$\sqrt{3}$	1.732	1	1	1.50%	1.50%	∞
Measurement drift (class A evaluation)	1.75%	R	$\sqrt{3}$	1.732	1	1	1.01%	1.01%	∞
RF ambient condition - noise	3.00%	R	$\sqrt{3}$	1.732	1	1	1.73%	1.73%	∞
RF ambient conditions - reflections	3.00%	R	$\sqrt{3}$	1.732	1	1	1.73%	1.73%	∞
Probe positioner Mechanical restrictions	0.40%	R	$\sqrt{3}$	1.732	1	1	0.23%	0.23%	∞
Probe Positioning with respect to phantom shell	2.90%	R	$\sqrt{3}$	1.732	1	1	1.67%	1.67%	∞
Post-processing	1.00%	R	$\sqrt{3}$	1.732	1	1	0.58%	0.58%	∞
Max SAR Eval	1.00%	R	$\sqrt{3}$	1.732	1	1	0.58%	0.58%	∞
Test Sample related									
Test sample positioning	2.90%	N	1	1	1	1	2.90%	2.90%	M-1
Device Holder Uncertainty	3.60%	N	1	1	1	1	3.60%	3.60%	M-1
Drift of output power	5.00%	R	$\sqrt{3}$	1.732	1	1	2.89%	2.89%	∞
Phantom and Setup									
Phantom Uncertainty	4.00%	R	$\sqrt{3}$	1.732	1	1	2.31%	2.31%	∞
Liquid permittivity (mea.)	2.04%	N	1	1	0.64	0.43	1.31%	0.88%	M
Liquid Conductivity (mea.)	2.44%	N	1	1	0.6	0.49	1.46%	1.20%	M
Combined standard uncertainty		RSS					11.96%	11.88%	
Expanded uncertainty (95% confidence interval), K=2							23.92%	23.77%	

Appendixes

Refer to separated files for the following appendixes.

EN20174008 SAR_Appendix A Photographs

EN20174008 SAR_Appendix B System Check Plots

EN20174008 SAR_Appendix C Measurement Plots

EN20174008 SAR_Appendix D DAE & Probe Cal. Certificate

EN20174008 SAR_Appendix E Phantom Description & Dipole Cal. Certificate

EN20174008 SAR_Appendix F WLAN report

- End of report -