RF Exposure report

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

EUT Description	Wireless module installed in Notebook Computer
Brand Name	acer
Model No.	RW101R-GL
Host Model Number:	N25Q8
Applicant	Acer Incorporated 8F, 88, Sec. 1, Xintai 5th Rd. Xizhi, New Taipei City 221 Taiwan
Standards	IEEE/ANSI C95.1-1992, IEEE 1528-2013
FCC ID	HLZRW101RGL
Date of EUT Receipt	Feb. 03, 2025
Date of Test(s)	Feb. 27, 2025 ~ Feb. 28, 2025
Date of Issue	Apr. 11, 2025

In the configuration tested, the EUT complied with the standards specified above.

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.

This report may only be reproduced and distributed in full. If the product in this report is used in any configuration other than that detailed in the report, the manufacturer must ensure the new system complies with all relevant standards. Any mention of SGS Taiwan Ltd. Central RF Lab or testing done by SGS Taiwan Ltd. Central RF Lab in connection with distribution or use of the product described in this report must be approved by SGS Taiwan Ltd. Central RF Lab in writing.

Signed on behalf of SGS

Clerk / Kimmy Chiou	PM / Jasper Wang	Approved By / John Yeh
Kimmy Chiou	Jasper Wang	John Yeh

Date: Apr. 11, 2025

Revision History

Report Number	Revision	Description	Issue Date	Revised By	Remark
TESA2502000142EN	00	Initial creation of document	Apr. 11, 2025	Kimmy Chiou	

Note:

1. The mark " * " is the revised version of the report due to comments submitted by the certification.

Contents

1 GENERAL INFORMATION

1.1 Test Methodology

The SAR testing method and procedure for this device is in accordance with the following standards:
IEEE/ANSI C95.1-1992
IEEE 1528-2013
KDB447498D01v06
KDB865664D01v01r04
KDB865664D02v01r02
KDB941225D01v03r01
KDB941225D05v02r05
KDB616217D04v01r02

1.2 Description of EUT

EUT Description	Wireless module installed in Notebook Computer	
Brand Name	acer	
Model No.	RW101R-GL	
Integrated WWAN Module	Brand Name: Rolling Wireless Model Name: RW101R-GL	
Integrated WLAN Module	Brand Name: Intel® BE200D2W Model Name: BE200D2W	
Duty Cycle	WCDMA	1
	LTE FDD	1
	LTE TDD Power Class 3	0.633
Supported radios (TX Frequency Range, MHz)	WCDMA Band II	1850-1910
	WCDMA Band IV	1710-1755
	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 13	777-787
	LTE FDD Band 14	788-798
	LTE FDD Band 17	704-716
	LTE FDD Band 25	1850-1915
	LTE FDD Band 26	814-849
	LTE FDD Band 30	2305-2315
	LTE TDD Band 38	2570-2620
	LTE TDD Band 41 Power Class 3	2496-2690

Supported radios (TX Frequency Range, MHz)	LTE TDD Band 48	3550-3700
	LTE FDD Band 66	1710-1780
	LTE FDD Band 71	663-698

1.3 Maximum value

Summary of Maximum SAR Value	
Mode	Highest SAR 1g (W/kg)
LTE Band 5	0.04

1.4 Antenna Information

Vendor	Galtronics Corporation									
Part Number	02036698-08188									
Frequency(MHz)	71	12	17	13	14	26	5	4	66	2
	663~698	699~716	704~716	777~787	788~798	814~849	824~849	1710~1755	1710~1780	1850~1910
Gain (dBi)	-0.15	-0.15	-0.15	-0.15	-0.15	-0.90	-0.90	1.87	1.87	0.90
Frequency(MHz)	25	30	41	7	38	48				
	1850~1915	2305~2315	2496~2690	2500~2570	2570~2620	3550~3700				
Gain (dBi)	0.90	0.12	0.73	0.73	0.73	0.91				

Note: Antenna information is provided by the applicant.

2 MEASUREMENT SYSTEM

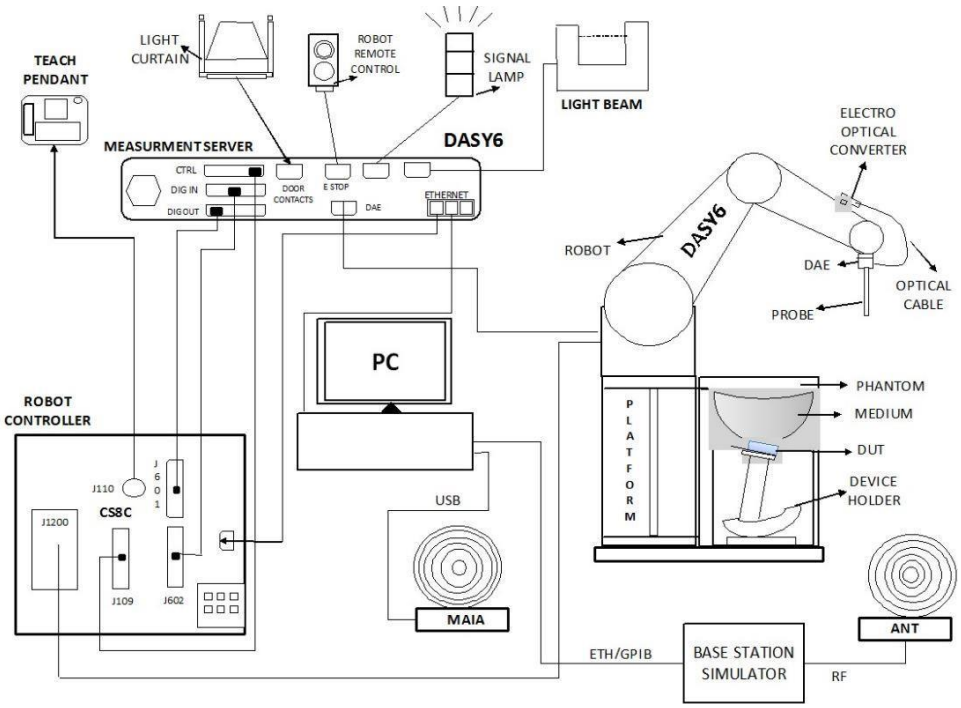
2.1 Test Facility

Laboratory	Test Site Address	Test Site Name	FCC Designation number	IC CAB identifier
SGS Taiwan Ltd. Central RF Lab. (TAF code 3702)	**1F, No. 8, Alley 15, Lane 120, Sec. 1, NeiHu Road, Neihu District, Taipei City, 11493, Taiwan.**	SAR 2	**TW0029**	TW3702
		SAR 6		
		SAR 8		
	No. 2, Keji 1st Rd., Guishan Township, Taoyuan County, 33383, Taiwan	SAR 1	TW0028	
		SAR 4		
	No.134, Wu Kung Road, New Taipei Industrial Park, Wuku District, New Taipei City, Taiwan	SAR 3	TW0027	
		SAR 7		
Note: Test site name is remarked on a bolded mark as an indication where measurements occurred in specific test site and address.				

2.2 SAR System

Block Diagram (DASY6)

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

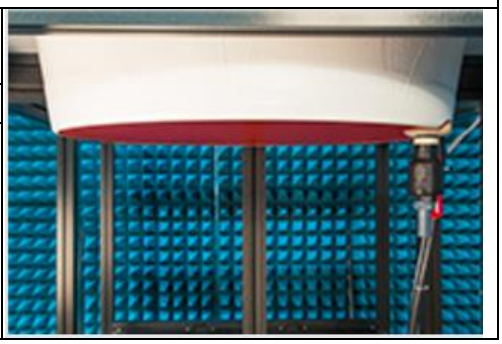


- A standard high precision 6-axis robot with controller, teach pendant and software. An arm extension for accommodating the data acquisition electronics (DAE).
- An isotropic field probe optimized and calibrated for the targeted measurement.
- A data acquisition electronics (DAE) which performs the signal amplification, signal multiplexing, AD-conversion, offset measurements, mechanical surface detection, collision detection, etc. The unit is battery powered with standard or rechargeable batteries. The signal is optically transmitted to the EOC.
- The Electro-optical converter (EOC) performs the conversion from optical to electrical signals for the digital communication to the DAE. To use optical surface detection, a special version of the EOC is required. The EOC signal is transmitted to the measurement server.
- The function of the measurement server is to perform the time critical tasks such as signal filtering, control of the robot operation and fast movement interrupts.
- The Light Beam used is for probe alignment. This improves the (absolute) accuracy of the probe positioning.
- A computer running Windows 10 and the DASY6 software.
- Remote control and teach pendant as well as additional circuitry for robot safety such as warning lamps, etc.
- The phantom, the device holder and other accessories according to the targeted measurement.

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 750/835/1750/1900/2300/2600/3500/3700 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 (ELI)

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

3 SAR SYSTEM VERIFICATION

3.1 Tissue Simulating Liquid

For the measurement of the field distribution inside the SAM phantom with DASY, the phantom must be filled with homogeneous tissue simulating liquid. For head SAR testing, the liquid height from the ear rint (ERP) of the phantom to the liquid top surface is larger than 15cm. For body SAR testing, the liquid height fromeference po the center of the flat phantom to the liquid top surface is larger than 15cm.

3.2 Tissue Simulant Liquid measurement

The dielectric properties for this Head-simulant fluid were measured by using the SPEAG Dielectric Assessment Kit (DAK-3.5)
All dielectric parameters of tissue simulates were measured within 24 hours of SAR measurements. The measured conductivity and permittivity are all within ± 5% of the target values.

3.3 Measurement results of Tissue Simulant Liquid

Measured Frequency (MHz)	Target Dielectric Constant, εr	Target Conductivity, σ (S/m)	Measured Dielectric Constant, εr	Measured Conductivity, σ (S/m)	% dev εr	% dev σ	Limit	Measurement Date
673	42.311	0.885	41.842	0.873	-1.11%	-1.34%	± 5%	Feb. 27, 2025
680.5	42.271	0.885	41.791	0.874	-1.13%	-1.28%	± 5%	Feb. 27, 2025
688	42.231	0.886	41.742	0.875	-1.16%	-1.23%	± 5%	Feb. 27, 2025
704	42.145	0.887	41.637	0.877	-1.21%	-1.12%	± 5%	Feb. 27, 2025
707.5	42.127	0.887	41.616	0.878	-1.21%	-1.03%	± 5%	Feb. 27, 2025
709	42.119	0.887	41.603	0.879	-1.22%	-0.93%	± 5%	Feb. 27, 2025
710	42.113	0.887	41.601	0.880	-1.22%	-0.83%	± 5%	Feb. 27, 2025
711	42.108	0.887	41.598	0.880	-1.21%	-0.83%	± 5%	Feb. 27, 2025
750	41.900	0.890	41.384	0.882	-1.23%	-0.90%	± 5%	Feb. 27, 2025
782	41.749	0.894	41.259	0.883	-1.17%	-1.20%	± 5%	Feb. 27, 2025
793	41.698	0.895	41.220	0.884	-1.15%	-1.24%	± 5%	Feb. 27, 2025
821.5	41.564	0.898	42.918	0.927	3.26%	3.18%	± 5%	Feb. 27, 2025
826.4	41.540	0.899	42.902	0.928	3.28%	3.23%	± 5%	Feb. 27, 2025
829	41.528	0.899	42.893	0.929	3.29%	3.30%	± 5%	Feb. 27, 2025
831.5	41.516	0.900	42.861	0.930	3.24%	3.38%	± 5%	Feb. 27, 2025
835	41.500	0.900	42.853	0.931	3.26%	3.44%	± 5%	Feb. 27, 2025
836.5	41.500	0.902	42.840	0.932	3.23%	3.37%	± 5%	Feb. 27, 2025
836.6	41.500	0.902	42.829	0.933	3.20%	3.47%	± 5%	Feb. 27, 2025
841.5	41.500	0.907	42.822	0.934	3.19%	2.98%	± 5%	Feb. 27, 2025
844	41.500	0.910	42.807	0.936	3.15%	2.89%	± 5%	Feb. 27, 2025
846.6	41.500	0.912	42.802	0.937	3.14%	2.69%	± 5%	Feb. 27, 2025
1712.4	40.125	1.350	40.420	1.355	0.73%	0.37%	± 5%	Feb. 27, 2025
1720	40.114	1.354	40.401	1.360	0.71%	0.42%	± 5%	Feb. 27, 2025
1732.4	40.097	1.361	40.386	1.366	0.72%	0.34%	± 5%	Feb. 27, 2025
1732.5	40.096	1.361	40.385	1.367	0.72%	0.41%	± 5%	Feb. 27, 2025
1745	40.079	1.369	40.358	1.377	0.70%	0.62%	± 5%	Feb. 27, 2025
1750	40.071	1.371	40.353	1.379	0.70%	0.55%	± 5%	Feb. 27, 2025
1752.6	40.068	1.373	40.347	1.380	0.70%	0.52%	± 5%	Feb. 27, 2025
1770	40.043	1.383	40.309	1.392	0.66%	0.66%	± 5%	Feb. 27, 2025
1852.4	40.000	1.400	40.806	1.426	2.01%	1.86%	± 5%	Feb. 27, 2025
1860	40.000	1.400	40.793	1.431	1.98%	2.21%	± 5%	Feb. 27, 2025
1880	40.000	1.400	40.778	1.438	1.95%	2.71%	± 5%	Feb. 27, 2025
1882.5	40.000	1.400	40.774	1.439	1.94%	2.79%	± 5%	Feb. 27, 2025
1900	40.000	1.400	40.759	1.441	1.90%	2.93%	± 5%	Feb. 27, 2025
1905	40.000	1.400	40.751	1.442	1.88%	3.00%	± 5%	Feb. 27, 2025
1907.6	40.000	1.400	40.747	1.444	1.87%	3.14%	± 5%	Feb. 27, 2025
2300	39.500	1.670	38.379	1.620	-2.84%	-2.99%	± 5%	Feb. 28, 2025
2310	39.480	1.679	38.346	1.628	-2.87%	-3.02%	± 5%	Feb. 28, 2025
2506	39.125	1.860	38.923	1.847	-0.52%	-0.68%	± 5%	Feb. 28, 2025
2510	39.120	1.864	38.917	1.849	-0.52%	-0.80%	± 5%	Feb. 28, 2025
2535	39.087	1.891	38.867	1.874	-0.56%	-0.88%	± 5%	Feb. 28, 2025
2549.5	39.067	1.906	38.836	1.891	-0.59%	-0.79%	± 5%	Feb. 28, 2025
2560	39.053	1.917	38.828	1.903	-0.58%	-0.75%	± 5%	Feb. 28, 2025
2580	39.027	1.939	38.796	1.926	-0.59%	-0.65%	± 5%	Feb. 28, 2025
2593	39.009	1.953	38.794	1.940	-0.55%	-0.64%	± 5%	Feb. 28, 2025
2595	39.007	1.955	38.793	1.941	-0.55%	-0.70%	± 5%	Feb. 28, 2025
2600	39.000	1.960	38.789	1.945	-0.54%	-0.77%	± 5%	Feb. 28, 2025
2610	38.988	1.971	38.770	1.959	-0.56%	-0.61%	± 5%	Feb. 28, 2025
2636.5	38.954	2.000	38.729	1.986	-0.58%	-0.71%	± 5%	Feb. 28, 2025
2680	38.900	2.048	38.654	2.037	-0.63%	-0.54%	± 5%	Feb. 28, 2025
3500	37.900	2.910	38.586	2.952	1.81%	1.44%	± 5%	Feb. 28, 2025
3560	37.840	2.972	38.517	3.018	1.79%	1.53%	± 5%	Feb. 28, 2025
3609	37.791	3.023	38.445	3.071	1.73%	1.58%	± 5%	Feb. 28, 2025
3641	37.759	3.057	38.426	3.107	1.77%	1.65%	± 5%	Feb. 28, 2025
3690	37.710	3.108	38.374	3.154	1.76%	1.49%	± 5%	Feb. 28, 2025
3700	37.700	3.118	38.355	3.168	1.74%	1.60%	± 5%	Feb. 28, 2025

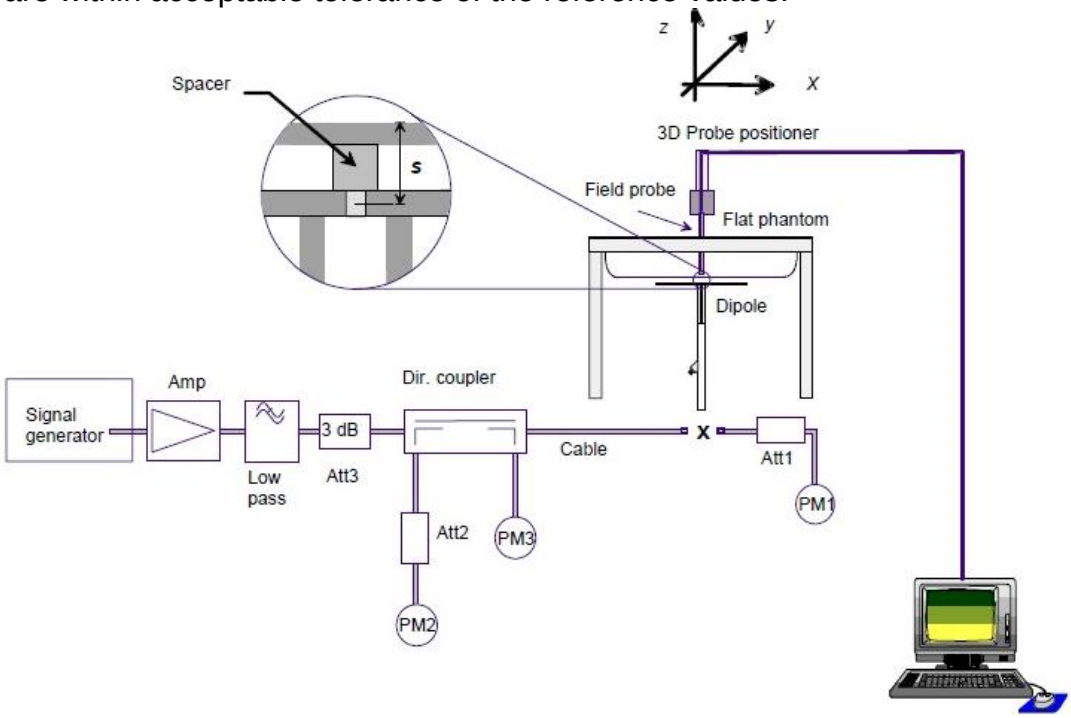
3.4 The composition of the tissue simulating liquid:

Simulating Liquids for 600 MHz -10 GHz, Manufactured by SPEAG:

Broad-band head tissue simulating liquids	SPEAG Product	Frequency range (MHz)	Main Ingredients
	HBBL600-10000V6	600 - 10000	Water, Oil

3.5 System check

The microwave circuit arrangement for system check is sketched in below. The daily system accuracy verification occurs within the flat section of the SAM phantom and ELI phantom. A SAR measurement was performed to see if the measured SAR was within +/- 10% from the target SAR values.
The tests were conducted on the same days as the measurement of the DUT. The obtained results from the system accuracy verification are displayed with SAR values normalized to 1W forward power delivered to the dipole.
During the tests, the liquid depth from the center of the flat phantom to the liquid top surface was 15 cm above 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.



The block diagram of system check

3.6 System check results

Validation Kit	S/N	Frequency (MHz)	1W Target 1g-SAR (W/kg)	pin=250mW Measured 1g-SAR (W/kg)	Normalized to 1W 1g-SAR (W/kg)	Deviation (%)	Limit	Measurement Date
D750V3	1015	750	8.51	2.03	8.12	-4.58	± 10%	Feb.27,2025
D835V2	4d063	835	9.4	2.38	9.52	1.28	± 10%	Feb.27,2025
D1750V2	1008	1750	36.3	8.99	35.96	-0.94	± 10%	Feb.27,2025
D1900V2	5d173	1900	39.9	9.76	39.04	-2.16	± 10%	Feb.27,2025
D2300V2	1009	2300	49.7	12.3	49.2	-1.01	± 10%	Feb.28,2025
D2600V2	1014	2600	54.8	13.4	53.6	-2.19	± 10%	Feb.28,2025
Validation Kit	S/N	Frequency (MHz)	1W Target 1g-SAR (W/kg)	pin=100mW Measured 1g-SAR (W/kg)	Normalized to 1W 1g-SAR (W/kg)	Deviation (%)	Limit	Measurement Date
D3500V2	1009	3500	66	6.41	64.1	-2.88	± 10%	Feb.28,2025
D3700V2	1057	3700	67.5	6.48	64.8	-4.00	± 10%	Feb.28,2025

4 TEST CONFIGURATIONS

4.1 Test Environment

Ambient Temperature: 22±2° C
Tissue Simulating Liquid: 22±2° C

4.2 Test Note

- **General:** Measurements are performed respectively on the lowest, middle and highest channels of the operating band(s).
- **General:** The EUT is set to maximum power level during all tests, and at the beginning of each test the battery is fully charged.
- **General:** During the SAR testing, the DASY system checks power drift by comparing the e-field strength of one specific location measured at the beginning with that measured at the end of the SAR testing.
- **General:** According to KDB447498D01v06, testing of other required channels is not required when the reported 1-g SAR for the highest output channel is ≤ 0.8 W/kg, when the transmission band is ≤ 100 MHz.
- **General:** 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 (~ 10% from the 1-g SAR limit).
- **LTE:** 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.

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

b. Per Section 5.2.2, the largest channel bandwidth and measure SAR for QPSK with 50% RB allocation

- 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

- For QPSK with 100% RB allocation, SAR is not required when the highest

maximum output power for 100 % RB allocation is less than the highest maximum output power in 50% and 1 RB allocations and the highest reported SAR for 1 RB and 50% RB allocation in 5.2.1 and 5.2.2 are ≤ 0.8 W/kg.

- Otherwise, SAR is measured for the highest output power channel and if the reported SAR is > 1.45 W/kg, the remaining required test channels must also be tested.

d. Per Section 5.2.4, Higher order modulations

- 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 maximum output power for the configuration in the higher order modulation is > ½ dB higher than the same configuration in QPSK or when the reported SAR for the QPSK configuration is > 1.45 W/kg.

e. Per Section 5.3, other channel bandwidth standalone SAR test requirements

- For the other channel bandwidths used by the device in a frequency band, apply all the procedures required for the largest channel bandwidth in section 5.2 to determine the channels and RB configurations that need SAR testing and only measure SAR when the highest maximum output power of a configuration requiring testing in the smaller channel bandwidth is > ½ dB higher than the equivalent channel configurations in the largest channel bandwidth configuration or the reported SAR of a configuration for the largest channel bandwidth is > 1.45 W/kg. 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.
- TDD LTE was tested at highest duty factor using UL-DL configuration 0 with 6 UL subframes and 2 special subframes using extended cyclic prefix only and special subframe configuration 6. SAR tests were performed at maximum output power and worst-case transmission duty factor in extended cyclic prefix. Per 3GPP 36.211 Section 4.2, the duty factor for UL-DL configuration 0/special subframe configuration 6 using extended cyclic prefix is 0.633.

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

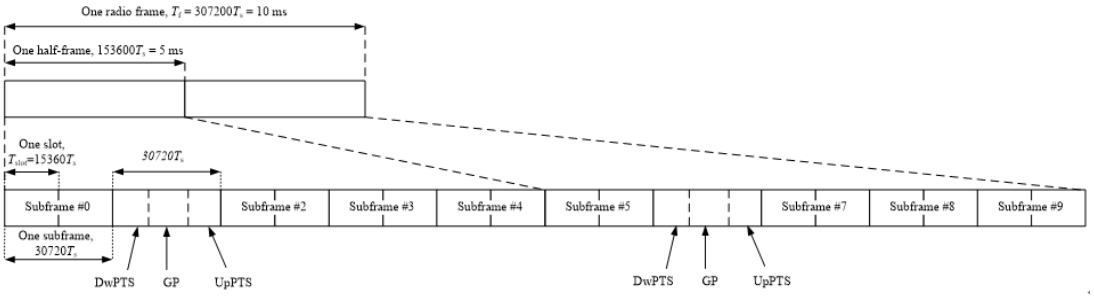


Figure 4.2-1: Frame structure type 2 (for 5 ms switch-point periodicity)

Table 4.2-1: Configuration of special subframe (lengths of DwPTS/GP/UpPTS)

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

Table 4.2-2: Uplink-downlink configurations

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

Considering the highest transmission duty cycle, TDD LTE was tested using Uplink-Downlink configuration 0 with 6 uplink subframe and 2 special subframe. The special subframe was set to special subframe configuration 6 using extended cyclic prefix uplink. Therefore, SAR testing for TDD LTE was measured at the maximum output power with highest transmission duty cycle of 63.33%.

4.3 Test position

Laptop mode SAR test position (0mm)

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

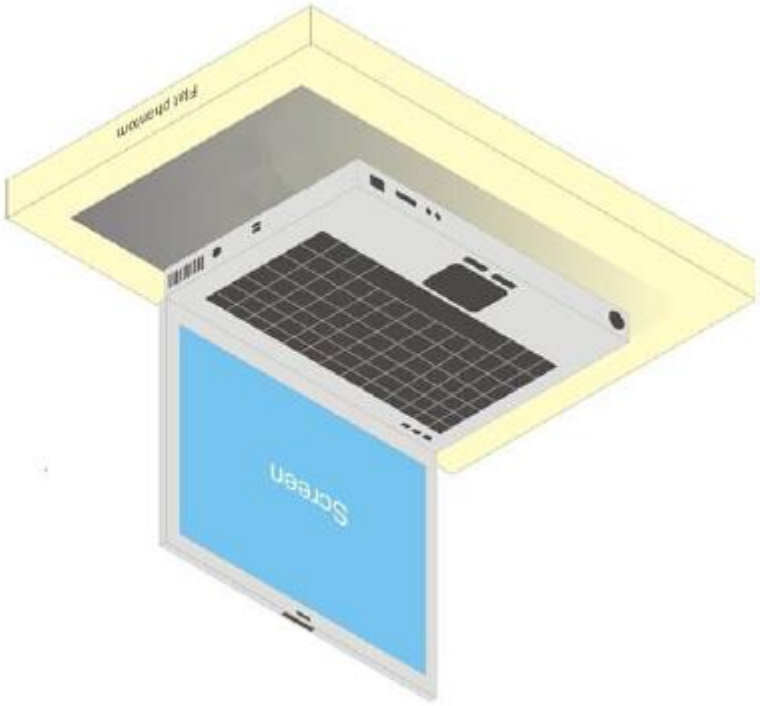


Illustration for Laptop Setup

4.4 Test limit

§ 2.1093(d)(1)

Applications for equipment authorization of portable RF sources subject to routine environmental evaluation must contain a statement confirming compliance with the limits specified in § 1.1310 as part of their application. Technical information showing the basis for this statement must be submitted to the Commission upon request. The SAR limits specified in § 1.1310(a) through (c) of this chapter shall be used for evaluation of portable devices transmitting in the frequency range from 100 kHz to 6 GHz. Portable devices that transmit at frequencies above 6 GHz shall be evaluated in terms of the MPE limits specified in Table 1 to § 1.1310(e)(1). A minimum separation distance applicable to the operating configurations and exposure conditions of the device shall be used for the evaluation. In general, maximum time-averaged power levels must be used for evaluation. All unlicensed personal communications service (PCS) devices and unlicensed NII devices shall be subject to the limits for general population/uncontrolled exposure.

Radiofrequency radiation exposure limits.

§ 1.1310(a)

Specific absorption rate (SAR) shall be used to evaluate the environmental impact of human exposure to radiofrequency (RF) radiation as specified in § 1.1307(b) within the frequency range of 100 kHz to 6 GHz (inclusive).

§ 1.1310(b)

The SAR limits for occupational/controlled exposure are 0.4 W/kg, as averaged over the whole body, and a peak spatial-average SAR of 8 W/kg, averaged over any 1 gram of tissue (defined as a tissue volume in the shape of a cube). Exceptions are the parts of the human body treated as extremities, such as hands, wrists, feet, ankles, and pinnae, where the peak spatial-average SAR limit for occupational/controlled exposure is 20 W/kg, averaged over any 10 grams of tissue (defined as a tissue volume in the shape of a cube). Exposure may be averaged over a time period not to exceed 6 minutes to determine compliance with occupational/controlled SAR limits.

§ 1.1310(c)

The SAR limits for general population/uncontrolled exposure are 0.08 W/kg, as averaged over the whole body, and a peak spatial-average SAR of 1.6 W/kg, averaged over any 1 gram of tissue (defined as a tissue volume in the shape of a cube). Exceptions are the parts of the human body treated as extremities, such as hands, wrists, feet, ankles, and pinnae, where the peak spatial-average SAR limit is 4 W/kg, averaged over any 10 grams of tissue (defined as a tissue volume in the shape of a cube). Exposure may be averaged over a time period not to exceed 30 minutes to determine compliance with general population/uncontrolled SAR limits.

Note to paragraphs (a) through (c):

SAR is a measure of the rate of energy absorption due to exposure to RF electromagnetic energy. These SAR limits to be used for evaluation are based generally on criteria published by the American National Standards Institute (ANSI) for localized 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 Std C95.1-1992, copyright 1992 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 Radiofrequency Electromagnetic Fields," NCRP Report No. 86, Section 17.4.5, copyright 1986 by NCRP, Bethesda, Maryland 20814. Limits for whole body SAR and peak spatial-average SAR are based

on recommendations made in both of these documents. The MPE limits in Table 1 are based generally on criteria published by the NCRP in “Biological Effects and Exposure Criteria for Radiofrequency Electromagnetic Fields,” NCRP Report No. 86, Sections 17.4.1, 17.4.1.1, 17.4.2 and 17.4.3, copyright 1986 by NCRP, Bethesda, Maryland 20814. In the frequency range from 100 MHz to 1500 MHz, these MPE exposure limits for field strength and power density are also generally based on criteria recommended by the ANSI in Section 4.1 of “IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz,” ANSI/IEEE Std C95.1-1992, copyright 1992 by the Institute of Electrical and Electronics Engineers, Inc., New York, New York 10017.

Portable devices that transmit at frequencies above 6 GHz shall be evaluated in terms of the MPE limits specified in Table 1 to § 1.1310(e)(1).
According to ANSI/IEEE C95.1-1992, the criteria listed in the following Table shall be used to evaluate the environmental impact of human exposure to radio frequency (RF) radiation as specified in §1.1310.
Peak Spatially Averaged Power Density was evaluated over a circular area of 4cm2 per interim FCC Guidance for near-field power density evaluations per October 2018 TCB Workshop notes

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm^2)	Averaging time (minutes)
(i) Limits for Occupational/Controlled Exposure				
0.3-3.0	614	1.63	*(100)	≤6
3.0-30	1842/f	4.89/f	*($900/f^2$)	<6
30-300	61.4	0.163	1.0	<6
300-1,500			f/300	<6
1,500-100,000			5	<6
(ii) Limits for General Population/Uncontrolled Exposure				
0.3-1.34	614	1.63	*(100)	<30
1.34-30	824/f	2.19/f	*($180/f^2$)	<30
30-300	27.5	0.073	0.2	<30
300-1,500			f/1500	<30
1,500-100,000			1.0	<30

f = frequency in MHz. * = Plane-wave equivalent power density.
Table 1 to § 1.1310(e)(1) - Limits for Maximum Permissible Exposure (MPE)

5 MAXIMUM OUTPUT POWER

5.1 WCDMA

Band		WCDMA II		
TX Channel		9262	9400	9538
Frequency (MHz)		1852.4	1880	1907.6
Max. Rated Avg. Power+Max. Tolerance (dBm)		**24.50**		
3GPP Rel 99	RMC 12.2Kbps	23.82	23.75	23.54
3GPP Rel 5	HSDPA Subtest-1	23.71	23.53	23.36
	HSDPA Subtest-2	23.60	23.52	23.40
	HSDPA Subtest-3	23.14	23.07	22.78
	HSDPA Subtest-4	23.17	23.06	22.97
3GPP Rel 6	HSUPA Subtest-1	23.62	23.63	23.31
	HSUPA Subtest-2	21.62	21.65	21.32
	HSUPA Subtest-3	22.59	22.68	22.43
	HSUPA Subtest-4	21.52	21.60	21.33
	HSUPA Subtest-5	23.72	23.54	23.33
3GPP Rel 7	HSPA+	21.11	21.00	20.83
3GPP Rel 8	DC-HSDPA Subtest-1	23.59	23.58	23.31
	DC-HSDPA Subtest-2	23.62	23.57	23.47
	DC-HSDPA Subtest-3	23.27	23.03	22.89
	DC-HSDPA Subtest-4	23.25	23.06	22.89

Band		WCDMA IV		
TX Channel		1312	1413	1513
Frequency (MHz)		1712.4	1732.6	1752.6
Max. Rated Avg. Power+Max. Tolerance (dBm)		**24.50**		
3GPP Rel 99	RMC 12.2Kbps	23.75	23.85	23.70
3GPP Rel 5	HSDPA Subtest-1	23.53	23.66	23.53
	HSDPA Subtest-2	23.52	23.77	23.49
	HSDPA Subtest-3	23.05	23.17	23.04
	HSDPA Subtest-4	23.10	23.19	22.91
3GPP Rel 6	HSUPA Subtest-1	23.65	23.60	23.56
	HSUPA Subtest-2	21.67	21.61	21.45
	HSUPA Subtest-3	22.54	22.56	22.46
	HSUPA Subtest-4	21.52	21.62	21.62
	HSUPA Subtest-5	23.59	23.56	23.42
3GPP Rel 7	HSPA+	21.07	21.20	21.05
3GPP Rel 8	DC-HSDPA Subtest-1	23.59	23.77	23.41
	DC-HSDPA Subtest-2	23.56	23.67	23.59
	DC-HSDPA Subtest-3	23.09	23.07	23.06
	DC-HSDPA Subtest-4	23.11	23.28	23.01

Band		WCDMA V		
TX Channel		4132	4183	4233
Frequency (MHz)		826.4	836.6	846.6
Max. Rated Avg. Power+Max. Tolerance (dBm)		**24.50**		
3GPP Rel 99	RMC 12.2Kbps	23.58	23.68	23.72
3GPP Rel 5	HSDPA Subtest-1	23.43	23.55	23.57
	HSDPA Subtest-2	23.40	23.61	23.57
	HSDPA Subtest-3	22.83	23.08	23.12
	HSDPA Subtest-4	22.95	22.91	23.07
3GPP Rel 6	HSUPA Subtest-1	23.39	23.51	23.65
	HSUPA Subtest-2	21.41	21.51	21.56
	HSUPA Subtest-3	22.43	22.46	22.57
	HSUPA Subtest-4	21.37	21.62	21.62
	HSUPA Subtest-5	23.51	23.49	23.50
3GPP Rel 7	HSPA+	20.92	21.10	21.18
3GPP Rel 8	DC-HSDPA Subtest-1	23.41	23.59	23.55
	DC-HSDPA Subtest-2	23.29	23.62	23.53
	DC-HSDPA Subtest-3	22.98	23.00	23.09
	DC-HSDPA Subtest-4	23.01	23.10	23.17

5.2 FDD LTE

LTE Band 2								
BW(MHz)	Modulation	RB Size	RB Offset	Conducted power (dBm)			Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
Frequency (MHz)				1860	1880	1900		
Channel				18700	18900	19100		
20	QPSK	1	0	23.28	23.30	23.18	24.00	0
		1	50	23.10	23.07	23.11	24.00	0
		1	99	23.09	23.22	22.94	24.00	0
		50	0	22.94	22.94	22.87	23.00	1
		50	25	22.90	22.95	22.84	23.00	1
		50	50	22.89	22.87	22.88	23.00	1
		100	0	22.97	22.89	22.81	23.00	1
20	16-QAM	1	0	22.87	22.91	22.83	23.00	1
		1	50	22.88	22.92	22.86	23.00	1
		1	99	22.89	22.91	22.81	23.00	1
		50	0	21.55	21.67	21.47	22.00	2
		50	25	21.67	21.78	21.56	22.00	2
		50	50	21.68	21.68	21.45	22.00	2
		100	0	21.61	21.68	21.52	22.00	2

LTE Band 2								
BW(MHz)	Modulation	RB Size	RB Offset	Conducted power (dBm)			Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
Frequency (MHz)				1857.5	1880	1902.5		
Channel				18675	18900	19125		
15	QPSK	1	0	23.09	23.21	23.02	24.00	0
		1	36	23.24	23.13	23.12	24.00	0
		1	74	23.10	23.15	22.96	24.00	0
		36	0	22.91	22.91	22.83	23.00	1
		36	18	22.92	22.87	22.73	23.00	1
		36	37	22.99	22.85	22.79	23.00	1
		75	0	22.88	23.00	22.75	23.00	1
15	16-QAM	1	0	22.90	22.99	22.79	23.00	1
		1	36	22.98	22.89	22.74	23.00	1
		1	74	22.93	22.86	22.74	23.00	1
		36	0	21.61	21.68	21.53	22.00	2
		36	18	21.67	21.61	21.47	22.00	2
		36	37	21.60	21.57	21.43	22.00	2
		75	0	21.62	21.51	21.48	22.00	2

LTE Band 2								
BW(MHz)	Modulation	RB Size	RB Offset	Conducted power (dBm)			Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
Frequency (MHz)				1855	1880	1905		
Channel				18650	18900	19150		
10	QPSK	1	0	23.02	23.24	23.01	24.00	0
		1	25	23.08	23.27	22.98	24.00	0
		1	49	23.17	23.12	23.02	24.00	0
		25	0	22.87	22.87	22.77	23.00	1
		25	12	22.84	22.96	22.85	23.00	1
		25	25	22.85	22.94	22.71	23.00	1
		50	0	22.95	22.93	22.83	23.00	1
10	16-QAM	1	0	22.97	22.94	22.70	23.00	1
		1	25	22.93	22.92	22.88	23.00	1
		1	49	22.89	22.92	22.88	23.00	1
		25	0	21.53	21.62	21.49	22.00	2
		25	12	21.50	21.69	21.62	22.00	2
		25	25	21.65	21.67	21.47	22.00	2
		50	0	21.61	21.75	21.63	22.00	2

LTE Band 2								
BW(MHz)	Modulation	RB Size	RB Offset	Conducted power (dBm)			Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
Frequency (MHz)				1852.5	1880	1907.5		
Channel				18625	18900	19175		
5	QPSK	1	0	23.08	23.19	22.99	24.00	0
		1	12	23.06	23.15	23.09	24.00	0
		1	24	23.06	23.18	23.14	24.00	0
		12	0	22.91	22.89	22.91	23.00	1
		12	6	22.95	22.84	22.80	23.00	1
		12	13	22.92	22.83	22.94	23.00	1
		25	0	22.91	22.96	22.70	23.00	1
5	16-QAM	1	0	22.94	22.92	22.95	23.00	1
		1	12	22.99	22.93	22.83	23.00	1
		1	24	22.98	22.84	22.93	23.00	1
		12	0	21.65	21.71	21.60	22.00	2
		12	6	21.68	21.67	21.61	22.00	2
		12	13	21.59	21.53	21.49	22.00	2
		25	0	21.65	21.66	21.53	22.00	2

LTE Band 2								
BW(MHz)	Modulation	RB Size	RB Offset	Conducted power (dBm)			Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
Frequency (MHz)				1851.5	1880	1908.5		
Channel				18615	18900	19185		
3	QPSK	1	0	23.12	23.15	23.02	24.00	0
		1	7	23.20	23.12	22.96	24.00	0
		1	14	22.99	23.13	23.05	24.00	0
		8	0	22.88	22.95	22.74	23.00	1
		8	4	22.95	22.95	22.85	23.00	1
		8	7	22.95	22.95	22.73	23.00	1
		15	0	22.95	22.95	22.93	23.00	1
3	16-QAM	1	0	22.82	22.99	22.87	23.00	1
		1	7	22.92	22.94	22.79	23.00	1
		1	14	22.80	22.94	22.89	23.00	1
		8	0	21.52	21.64	21.52	22.00	2
		8	4	21.65	21.63	21.48	22.00	2
		8	7	21.59	21.56	21.41	22.00	2
		15	0	21.75	21.76	21.42	22.00	2

LTE Band 2								
BW(MHz)	Modulation	RB Size	RB Offset	Conducted power (dBm)			Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
Frequency (MHz)				1850.7	1880	1909.3		
Channel				18607	18900	19193		
1.4	QPSK	1	0	23.14	23.20	22.95	24.00	0
		1	2	23.10	23.03	22.89	24.00	0
		1	5	23.12	23.13	23.07	24.00	0
		3	0	22.89	22.99	22.82	24.00	0
		3	2	22.84	22.85	22.73	24.00	0
		3	3	22.98	22.88	22.76	24.00	0
		6	0	22.93	22.96	22.72	23.00	1
1.4	16-QAM	1	0	22.97	22.93	22.71	23.00	1
		1	2	23.00	23.00	22.80	23.00	1
		1	5	22.85	22.82	22.85	23.00	1
		3	0	21.51	21.67	21.47	23.00	1
		3	2	21.69	21.64	21.56	23.00	1
		3	3	21.58	21.66	21.55	23.00	1
		6	0	21.61	21.54	21.55	22.00	2

LTE Band 4								
BW(MHz)	Modulation	RB Size	RB Offset	Conducted power (dBm)			Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
Frequency (MHz)				1720	1732.5	1745		
Channel				20050	20175	20300		
20	QPSK	1	0	23.05	23.22	23.32	24.00	0
		1	50	22.88	23.02	23.27	24.00	0
		1	99	22.86	23.06	23.17	24.00	0
		50	0	22.67	22.97	22.90	23.00	1
		50	25	22.57	22.84	22.98	23.00	1
		50	50	22.74	22.86	22.87	23.00	1
		100	0	22.70	22.75	22.95	23.00	1
20	16-QAM	1	0	22.60	22.90	22.88	23.00	1
		1	50	22.73	22.90	22.98	23.00	1
		1	99	22.65	22.92	22.96	23.00	1
		50	0	21.27	21.49	21.66	22.00	2
		50	25	21.40	21.65	21.58	22.00	2
		50	50	21.33	21.44	21.74	22.00	2
		100	0	21.33	21.55	21.67	22.00	2

LTE Band 4								
BW(MHz)	Modulation	RB Size	RB Offset	Conducted power (dBm)			Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
Frequency (MHz)				1717.5	1732.5	1747.5		
Channel				20025	20175	20325		
15	QPSK	1	0	22.90	23.01	23.21	24.00	0
		1	36	22.89	23.00	23.09	24.00	0
		1	74	22.82	23.17	23.18	24.00	0
		36	0	22.61	22.74	22.88	23.00	1
		36	18	22.68	22.75	22.96	23.00	1
		36	37	22.80	22.76	22.91	23.00	1
		75	0	22.77	22.88	22.94	23.00	1
15	16-QAM	1	0	22.71	22.90	22.94	23.00	1
		1	36	22.65	22.88	22.93	23.00	1
		1	74	22.66	22.83	22.91	23.00	1
		36	0	21.37	21.58	21.75	22.00	2
		36	18	21.47	21.63	21.65	22.00	2
		36	37	21.45	21.54	21.58	22.00	2
		75	0	21.44	21.53	21.69	22.00	2

LTE Band 4								
BW(MHz)	Modulation	RB Size	RB Offset	Conducted power (dBm)			Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
Frequency (MHz)				1715	1732.5	1750		
Channel				20000	20175	20350		
10	QPSK	1	0	22.88	23.12	23.19	24.00	0
		1	25	22.96	23.01	23.16	24.00	0
		1	49	23.02	23.13	23.15	24.00	0
		25	0	22.72	22.90	22.86	23.00	1
		25	12	22.68	22.81	22.92	23.00	1
		25	25	22.69	22.79	22.98	23.00	1
		50	0	22.57	22.85	23.00	23.00	1
10	16-QAM	1	0	22.75	22.92	22.98	23.00	1
		1	25	22.75	22.86	22.94	23.00	1
		1	49	22.78	22.96	22.92	23.00	1
		25	0	21.41	21.56	21.63	22.00	2
		25	12	21.44	21.67	21.59	22.00	2
		25	25	21.46	21.60	21.70	22.00	2
		50	0	21.47	21.53	21.55	22.00	2

LTE Band 4								
BW(MHz)	Modulation	RB Size	RB Offset	Conducted power (dBm)			Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
Frequency (MHz)				1712.5	1732.5	1752.5		
Channel				19975	20175	20375		
5	QPSK	1	0	22.91	23.01	23.22	24.00	0
		1	12	22.91	22.93	23.17	24.00	0
		1	24	22.86	23.04	23.02	24.00	0
		12	0	22.61	22.78	22.96	23.00	1
		12	6	22.73	22.89	22.99	23.00	1
		12	13	22.73	22.83	22.85	23.00	1
		25	0	22.62	22.91	22.93	23.00	1
5	16-QAM	1	0	22.69	22.75	22.88	23.00	1
		1	12	22.78	22.87	22.92	23.00	1
		1	24	22.71	22.81	22.95	23.00	1
		12	0	21.33	21.55	21.61	22.00	2
		12	6	21.29	21.56	21.65	22.00	2
		12	13	21.30	21.57	21.65	22.00	2
		25	0	21.44	21.55	21.59	22.00	2

LTE Band 4								
BW(MHz)	Modulation	RB Size	RB Offset	Conducted power (dBm)			Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
Frequency (MHz)				1711.5	1732.5	1753.5		
Channel				19965	20175	20385		
3	QPSK	1	0	22.84	23.00	23.07	24.00	0
		1	7	22.96	23.10	23.08	24.00	0
		1	14	22.99	22.99	23.09	24.00	0
		8	0	22.83	22.86	22.98	23.00	1
		8	4	22.70	22.92	22.86	23.00	1
		8	7	22.59	22.75	22.86	23.00	1
		15	0	22.74	22.80	22.94	23.00	1
3	16-QAM	1	0	22.75	22.84	22.93	23.00	1
		1	7	22.81	22.94	22.94	23.00	1
		1	14	22.72	22.94	22.91	23.00	1
		8	0	21.38	21.49	21.64	22.00	2
		8	4	21.43	21.44	21.71	22.00	2
		8	7	21.32	21.45	21.72	22.00	2
		15	0	21.37	21.54	21.72	22.00	2

LTE Band 4								
BW(MHz)	Modulation	RB Size	RB Offset	Conducted power (dBm)			Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
Frequency (MHz)				1710.7	1732.5	1754.3		
Channel				19957	20175	20393		
1.4	QPSK	1	0	22.76	23.00	23.06	24.00	0
		1	2	22.78	23.03	23.15	24.00	0
		1	5	22.80	23.02	23.10	24.00	0
		3	0	22.79	22.88	23.01	24.00	0
		3	2	22.79	22.86	23.01	24.00	0
		3	3	22.69	22.91	23.05	24.00	0
		6	0	22.67	23.00	22.97	23.00	1
1.4	16-QAM	1	0	22.83	22.75	22.91	23.00	1
		1	2	22.62	22.77	22.92	23.00	1
		1	5	22.59	22.99	22.98	23.00	1
		3	0	21.40	21.55	21.66	23.00	1
		3	2	21.43	21.61	21.73	23.00	1
		3	3	21.36	21.56	21.64	23.00	1
		6	0	21.25	21.56	21.56	22.00	2

LTE Band 5								
BW(MHz)	Modulation	RB Size	RB Offset	Conducted power (dBm)			Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
Frequency (MHz)				829	836.5	844		
Channel				20450	20525	20600		
10	QPSK	1	0	23.08	23.11	23.05	25.00	0
		1	25	23.00	23.06	23.02	25.00	0
		1	49	23.07	23.09	23.02	25.00	0
		25	0	22.62	22.71	22.67	24.00	1
		25	12	22.74	22.77	22.69	24.00	1
		25	25	22.71	22.81	22.74	24.00	1
		50	0	22.70	22.84	22.58	24.00	1
10	16-QAM	1	0	22.61	22.85	22.70	24.00	1
		1	25	22.75	22.71	22.68	24.00	1
		1	49	22.69	22.66	22.69	24.00	1
		25	0	21.43	21.48	21.42	23.00	2
		25	12	21.28	21.34	21.38	23.00	2
		25	25	21.34	21.44	21.40	23.00	2
		50	0	21.45	21.43	21.44	23.00	2

LTE Band 5								
BW(MHz)	Modulation	RB Size	RB Offset	Conducted power (dBm)			Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
Frequency (MHz)				826.5	836.5	846.5		
Channel				20425	20525	20625		
5	QPSK	1	0	23.03	23.01	23.04	25.00	0
		1	12	23.06	23.00	23.04	25.00	0
		1	24	23.07	23.07	23.08	25.00	0
		12	0	22.79	22.66	22.71	24.00	1
		12	6	22.78	22.75	22.66	24.00	1
		12	13	22.77	22.68	22.74	24.00	1
		25	0	22.71	22.75	22.67	24.00	1
5	16-QAM	1	0	22.65	22.81	22.69	24.00	1
		1	12	22.71	22.79	22.67	24.00	1
		1	24	22.70	22.69	22.57	24.00	1
		12	0	21.41	21.45	21.31	23.00	2
		12	6	21.50	21.45	21.31	23.00	2
		12	13	21.49	21.36	21.49	23.00	2
		25	0	21.46	21.45	21.47	23.00	2

LTE Band 5								
BW(MHz)	Modulation	RB Size	RB Offset	Conducted power (dBm)			Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
Frequency (MHz)				825.5	836.5	847.5		
Channel				20415	20525	20635		
3	QPSK	1	0	23.04	23.03	23.01	25.00	0
		1	7	23.01	23.09	23.00	25.00	0
		1	14	23.07	23.06	23.03	25.00	0
		8	0	22.62	22.72	22.62	24.00	1
		8	4	22.66	22.76	22.75	24.00	1
		8	7	22.83	22.73	22.60	24.00	1
		15	0	22.76	22.81	22.67	24.00	1
3	16-QAM	1	0	22.77	22.85	22.59	24.00	1
		1	7	22.74	22.64	22.66	24.00	1
		1	14	22.74	22.63	22.64	24.00	1
		8	0	21.46	21.35	21.35	23.00	2
		8	4	21.32	21.47	21.47	23.00	2
		8	7	21.48	21.39	21.32	23.00	2
		15	0	21.40	21.46	21.41	23.00	2

LTE Band 5								
BW(MHz)	Modulation	RB Size	RB Offset	Conducted power (dBm)			Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
Frequency (MHz)				824.7	836.5	848.3		
Channel				20407	20525	20643		
1.4	QPSK	1	0	23.05	23.08	23.07	25.00	0
		1	2	23.00	23.06	23.03	25.00	0
		1	5	23.06	23.04	23.02	25.00	0
		3	0	23.05	23.07	23.09	25.00	0
		3	2	23.06	23.05	23.04	25.00	0
		3	3	23.03	23.00	23.02	25.00	0
		6	0	22.70	22.72	22.61	24.00	1
1.4	16-QAM	1	0	22.75	22.72	22.82	24.00	1
		1	2	22.73	22.75	22.77	24.00	1
		1	5	22.80	22.67	22.67	24.00	1
		3	0	22.46	22.38	22.45	24.00	1
		3	2	22.40	22.45	22.35	24.00	1
		3	3	22.40	22.49	22.47	24.00	1
		6	0	21.40	21.57	21.30	23.00	2

LTE Band 7								
BW(MHz)	Modulation	RB Size	RB Offset	Conducted power (dBm)			Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
Frequency (MHz)				2510	2535	2560		
Channel				20850	21100	21350		
20	QPSK	1	0	23.04	23.13	23.14	24.00	0
		1	50	22.83	22.94	23.09	24.00	0
		1	99	22.93	22.99	23.03	24.00	0
		50	0	22.61	22.81	22.84	23.00	1
		50	25	22.71	22.77	22.89	23.00	1
		50	50	22.72	22.84	22.79	23.00	1
		100	0	22.75	22.67	22.87	23.00	1
20	16-QAM	1	0	22.66	22.80	22.79	23.00	1
		1	50	22.74	22.76	22.71	23.00	1
		1	99	22.72	22.77	22.78	23.00	1
		50	0	21.42	21.52	21.57	22.00	2
		50	25	21.41	21.49	21.43	22.00	2
		50	50	21.44	21.47	21.38	22.00	2
		100	0	21.47	21.54	21.47	22.00	2

LTE Band 7								
BW(MHz)	Modulation	RB Size	RB Offset	Conducted power (dBm)			Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
Frequency (MHz)				2507.5	2535	2562.5		
Channel				20825	21100	21375		
15	QPSK	1	0	22.94	23.02	23.00	24.00	0
		1	36	22.82	22.99	22.87	24.00	0
		1	74	22.80	22.93	23.06	24.00	0
		36	0	22.75	22.82	22.77	23.00	1
		36	18	22.72	22.76	22.69	23.00	1
		36	37	22.61	22.68	22.74	23.00	1
		75	0	22.60	22.79	22.70	23.00	1
15	16-QAM	1	0	22.70	22.88	22.77	23.00	1
		1	36	22.60	22.81	22.76	23.00	1
		1	74	22.70	22.90	22.74	23.00	1
		36	0	21.46	21.41	21.58	22.00	2
		36	18	21.33	21.55	21.55	22.00	2
		36	37	21.35	21.47	21.38	22.00	2
		75	0	21.38	21.39	21.36	22.00	2

LTE Band 7								
BW(MHz)	Modulation	RB Size	RB Offset	Conducted power (dBm)			Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
Frequency (MHz)				2505	2535	2565		
Channel				20800	21100	21400		
10	QPSK	1	0	22.92	23.00	23.10	24.00	0
		1	25	22.94	22.95	22.85	24.00	0
		1	49	22.87	22.93	22.87	24.00	0
		25	0	22.65	22.67	22.71	23.00	1
		25	12	22.57	22.87	22.78	23.00	1
		25	25	22.69	22.76	22.87	23.00	1
		50	0	22.66	22.79	22.91	23.00	1
10	16-QAM	1	0	22.76	22.77	22.81	23.00	1
		1	25	22.62	22.76	22.71	23.00	1
		1	49	22.60	22.77	22.87	23.00	1
		25	0	21.27	21.48	21.55	22.00	2
		25	12	21.41	21.47	21.41	22.00	2
		25	25	21.30	21.55	21.50	22.00	2
		50	0	21.34	21.36	21.61	22.00	2

LTE Band 7								
BW(MHz)	Modulation	RB Size	RB Offset	Conducted power (dBm)			Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
Frequency (MHz)				2502.5	2535	2567.5		
Channel				20775	21100	21425		
5	QPSK	1	0	22.85	22.96	22.97	24.00	0
		1	12	22.96	23.04	23.04	24.00	0
		1	24	22.95	22.97	23.06	24.00	0
		12	0	22.75	22.75	22.87	23.00	1
		12	6	22.65	22.78	22.86	23.00	1
		12	13	22.69	22.70	22.82	23.00	1
		25	0	22.67	22.89	22.84	23.00	1
5	16-QAM	1	0	22.59	22.74	22.71	23.00	1
		1	12	22.76	22.69	22.82	23.00	1
		1	24	22.68	22.79	22.77	23.00	1
		12	0	21.40	21.37	21.54	22.00	2
		12	6	21.31	21.48	21.47	22.00	2
		12	13	21.47	21.53	21.52	22.00	2
		25	0	21.34	21.52	21.45	22.00	2

LTE Band 12								
BW(MHz)	Modulation	RB Size	RB Offset	Conducted power (dBm)			Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
Frequency (MHz)				704	707.5	711		
Channel				23060	23095	23130		
10	QPSK	1	0	23.64	23.71	23.80	25.00	0
		1	25	23.53	23.58	23.66	25.00	0
		1	49	23.45	23.57	23.67	25.00	0
		25	0	23.21	23.35	23.38	24.00	1
		25	12	23.27	23.39	23.34	24.00	1
		25	25	23.33	23.29	23.37	24.00	1
		50	0	23.22	23.33	23.34	24.00	1
10	16-QAM	1	0	23.38	23.33	23.33	24.00	1
		1	25	23.18	23.45	23.44	24.00	1
		1	49	23.25	23.43	23.56	24.00	1
		25	0	22.08	22.03	22.18	23.00	2
		25	12	21.98	22.06	22.01	23.00	2
		25	25	21.91	21.99	22.24	23.00	2
		50	0	22.07	22.01	22.20	23.00	2

LTE Band 12								
BW(MHz)	Modulation	RB Size	RB Offset	Conducted power (dBm)			Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
Frequency (MHz)				701.5	707.5	713.5		
Channel				23035	23095	23155		
5	QPSK	1	0	23.50	23.49	23.64	25.00	0
		1	12	23.43	23.62	23.61	25.00	0
		1	24	23.57	23.65	23.60	25.00	0
		12	0	23.29	23.46	23.45	24.00	1
		12	6	23.36	23.38	23.43	24.00	1
		12	13	23.36	23.27	23.45	24.00	1
		25	0	23.37	23.36	23.47	24.00	1
5	16-QAM	1	0	23.24	23.27	23.41	24.00	1
		1	12	23.34	23.27	23.49	24.00	1
		1	24	23.38	23.39	23.44	24.00	1
		12	0	21.98	21.98	22.11	23.00	2
		12	6	22.09	22.14	22.10	23.00	2
		12	13	22.00	22.02	22.17	23.00	2
		25	0	22.01	22.10	22.18	23.00	2

LTE Band 12								
BW(MHz)	Modulation	RB Size	RB Offset	Conducted power (dBm)			Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
Frequency (MHz)				700.5	707.5	714.5		
Channel				23025	23095	23165		
3	QPSK	1	0	23.46	23.60	23.67	25.00	0
		1	7	23.50	23.62	23.57	25.00	0
		1	14	23.54	23.56	23.55	25.00	0
		8	0	23.30	23.40	23.52	24.00	1
		8	4	23.29	23.24	23.49	24.00	1
		8	7	23.23	23.31	23.42	24.00	1
		15	0	23.21	23.29	23.38	24.00	1
3	16-QAM	1	0	23.26	23.42	23.40	24.00	1
		1	7	23.38	23.34	23.35	24.00	1
		1	14	23.21	23.46	23.50	24.00	1
		8	0	22.00	22.06	22.09	23.00	2
		8	4	21.99	22.05	22.19	23.00	2
		8	7	21.97	22.02	22.03	23.00	2
		15	0	21.89	22.05	22.17	23.00	2

LTE Band 12								
BW(MHz)	Modulation	RB Size	RB Offset	Conducted power (dBm)			Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
Frequency (MHz)				699.7	707.5	715.3		
Channel				23017	23095	23173		
1.4	QPSK	1	0	23.43	23.51	23.66	25.00	0
		1	2	23.47	23.65	23.68	25.00	0
		1	5	23.60	23.57	23.68	25.00	0
		3	0	23.31	23.41	23.42	25.00	0
		3	2	23.16	23.35	23.41	25.00	0
		3	3	23.40	23.31	23.42	25.00	0
		6	0	23.29	23.32	23.45	24.00	1
1.4	16-QAM	1	0	23.17	23.38	23.42	24.00	1
		1	2	23.32	23.24	23.52	24.00	1
		1	5	23.35	23.39	23.39	24.00	1
		3	0	22.06	22.14	22.10	24.00	1
		3	2	22.02	22.05	22.24	24.00	1
		3	3	22.26	22.18	22.16	24.00	1
		6	0	22.01	22.04	22.25	23.00	2

LTE Band 13								
BW(MHz)	Modulation	RB Size	RB Offset	Conducted power (dBm)			Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
Frequency (MHz)				782	782	782		
Channel				23230	23230	23230		
10	QPSK	1	0	23.95	23.95	23.95	25.00	0
		1	25	23.73	23.73	23.73	25.00	0
		1	49	23.87	23.87	23.87	25.00	0
		25	0	23.58	23.58	23.58	24.00	1
		25	12	23.48	23.48	23.48	24.00	1
		25	25	23.58	23.58	23.58	24.00	1
		50	0	23.60	23.60	23.60	24.00	1
10	16-QAM	1	0	23.47	23.47	23.47	24.00	1
		1	25	23.54	23.54	23.54	24.00	1
		1	49	23.60	23.60	23.60	24.00	1
		25	0	22.29	22.29	22.29	23.00	2
		25	12	22.34	22.34	22.34	23.00	2
		25	25	22.26	22.26	22.26	23.00	2
		50	0	22.24	22.24	22.24	23.00	2

LTE Band 13								
BW(MHz)	Modulation	RB Size	RB Offset	Conducted power (dBm)			Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
Frequency (MHz)				779.5	782	784.5		
Channel				23205	23230	23255		
5	QPSK	1	0	23.73	23.82	23.79	25.00	0
		1	12	23.78	23.69	23.79	25.00	0
		1	24	23.80	23.89	23.88	25.00	0
		12	0	23.61	23.60	23.55	24.00	1
		12	6	23.60	23.59	23.69	24.00	1
		12	13	23.56	23.62	23.63	24.00	1
		25	0	23.54	23.67	23.64	24.00	1
5	16-QAM	1	0	23.62	23.64	23.66	24.00	1
		1	12	23.55	23.55	23.57	24.00	1
		1	24	23.61	23.59	23.62	24.00	1
		12	0	22.25	22.26	22.20	23.00	2
		12	6	22.27	22.36	22.36	23.00	2
		12	13	22.29	22.30	22.26	23.00	2
		25	0	22.32	22.34	22.33	23.00	2

LTE Band 14								
BW(MHz)	Modulation	RB Size	RB Offset	Conducted power (dBm)			Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
Frequency (MHz)				793	793	793		
Channel				23330	23330	23330		
10	QPSK	1	0	23.81	23.81	23.81	25.00	0
		1	25	23.62	23.62	23.62	25.00	0
		1	49	23.60	23.60	23.60	25.00	0
		25	0	23.47	23.47	23.47	24.00	1
		25	12	23.47	23.47	23.47	24.00	1
		25	25	23.47	23.47	23.47	24.00	1
		50	0	23.35	23.35	23.35	24.00	1
10	16-QAM	1	0	23.42	23.42	23.42	24.00	1
		1	25	23.46	23.46	23.46	24.00	1
		1	49	23.48	23.48	23.48	24.00	1
		25	0	22.14	22.14	22.14	23.00	2
		25	12	22.16	22.16	22.16	23.00	2
		25	25	22.20	22.20	22.20	23.00	2
		50	0	22.16	22.16	22.16	23.00	2

LTE Band 14								
BW(MHz)	Modulation	RB Size	RB Offset	Conducted power (dBm)			Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
Frequency (MHz)				790.5	793	795.5		
Channel				23305	23330	23355		
5	QPSK	1	0	23.68	23.67	23.69	25.00	0
		1	12	23.72	23.65	23.68	25.00	0
		1	24	23.54	23.78	23.77	25.00	0
		12	0	23.42	23.41	23.40	24.00	1
		12	6	23.56	23.36	23.44	24.00	1
		12	13	23.45	23.39	23.49	24.00	1
		25	0	23.51	23.49	23.53	24.00	1
5	16-QAM	1	0	23.47	23.46	23.41	24.00	1
		1	12	23.50	23.48	23.45	24.00	1
		1	24	23.57	23.45	23.48	24.00	1
		12	0	22.19	22.14	22.04	23.00	2
		12	6	22.23	22.16	22.10	23.00	2
		12	13	22.13	22.15	22.23	23.00	2
		25	0	22.11	22.15	22.12	23.00	2

LTE Band 17								
BW(MHz)	Modulation	RB Size	RB Offset	Conducted power (dBm)			Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
Frequency (MHz)				709	710	711		
Channel				23780	23790	23800		
10	QPSK	1	0	23.74	23.77	23.73	25.00	0
		1	25	23.66	23.58	23.49	25.00	0
		1	49	23.60	23.66	23.63	25.00	0
		25	0	23.41	23.32	23.44	24.00	1
		25	12	23.42	23.41	23.41	24.00	1
		25	25	23.48	23.37	23.37	24.00	1
		50	0	23.37	23.31	23.38	24.00	1
10	16-QAM	1	0	23.40	23.41	23.39	24.00	1
		1	25	23.29	23.43	23.41	24.00	1
		1	49	23.39	23.49	23.36	24.00	1
		25	0	22.11	22.13	22.03	23.00	2
		25	12	22.16	22.01	22.09	23.00	2
		25	25	22.10	22.25	22.02	23.00	2
		50	0	22.13	22.18	22.09	23.00	2

LTE Band 17								
BW(MHz)	Modulation	RB Size	RB Offset	Conducted power (dBm)			Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
Frequency (MHz)				706.5	710	713.5		
Channel				23755	23790	23825		
5	QPSK	1	0	23.71	23.71	23.63	25.00	0
		1	12	23.69	23.69	23.45	25.00	0
		1	24	23.59	23.58	23.52	25.00	0
		12	0	23.46	23.40	23.35	24.00	1
		12	6	23.44	23.48	23.37	24.00	1
		12	13	23.27	23.47	23.39	24.00	1
		25	0	23.46	23.38	23.43	24.00	1
5	16-QAM	1	0	23.36	23.44	23.42	24.00	1
		1	12	23.41	23.40	23.29	24.00	1
		1	24	23.27	23.39	23.29	24.00	1
		12	0	22.14	22.11	22.06	23.00	2
		12	6	22.16	22.08	22.01	23.00	2
		12	13	22.09	22.04	22.09	23.00	2
		25	0	22.08	22.09	22.10	23.00	2

LTE Band 25								
BW(MHz)	Modulation	RB Size	RB Offset	Conducted power (dBm)			Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
Frequency (MHz)				1860	1882.5	1905		
Channel				26140	26365	26590		
20	QPSK	1	0	23.21	23.24	23.19	24.00	0
		1	50	23.09	23.12	23.10	24.00	0
		1	99	23.07	23.05	23.02	24.00	0
		50	0	22.87	22.88	22.92	23.00	1
		50	25	22.91	22.94	22.75	23.00	1
		50	50	22.84	22.78	22.86	23.00	1
		100	0	22.94	22.97	22.85	23.00	1
20	16-QAM	1	0	22.77	22.93	22.86	23.00	1
		1	50	22.87	22.98	22.80	23.00	1
		1	99	22.79	22.96	22.88	23.00	1
		50	0	21.53	21.56	21.55	22.00	2
		50	25	21.59	21.56	21.43	22.00	2
		50	50	21.62	21.59	21.61	22.00	2
		100	0	21.55	21.56	21.54	22.00	2

LTE Band 25								
BW(MHz)	Modulation	RB Size	RB Offset	Conducted power (dBm)			Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
Frequency (MHz)				1857.5	1882.5	1907.5		
Channel				26115	26365	26615		
15	QPSK	1	0	22.96	23.04	23.06	24.00	0
		1	36	23.08	23.02	23.03	24.00	0
		1	74	23.08	22.97	23.04	24.00	0
		36	0	22.86	22.84	22.85	23.00	1
		36	18	22.82	22.82	22.81	23.00	1
		36	37	22.83	22.91	22.73	23.00	1
		75	0	22.77	22.99	22.80	23.00	1
15	16-QAM	1	0	22.91	22.91	22.91	23.00	1
		1	36	22.83	22.91	22.86	23.00	1
		1	74	22.75	22.94	22.76	23.00	1
		36	0	21.46	21.57	21.56	22.00	2
		36	18	21.61	21.60	21.55	22.00	2
		36	37	21.57	21.59	21.56	22.00	2
		75	0	21.61	21.55	21.51	22.00	2

LTE Band 25								
BW(MHz)	Modulation	RB Size	RB Offset	Conducted power (dBm)			Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
Frequency (MHz)				1855	1882.5	1910		
Channel				26090	26365	26640		
10	QPSK	1	0	22.99	23.08	23.06	24.00	0
		1	25	22.94	23.09	23.00	24.00	0
		1	49	23.10	23.18	23.01	24.00	0
		25	0	22.97	22.97	22.76	23.00	1
		25	12	22.82	22.94	22.83	23.00	1
		25	25	22.79	22.84	22.84	23.00	1
		50	0	22.88	22.90	22.82	23.00	1
10	16-QAM	1	0	22.73	22.83	22.82	23.00	1
		1	25	22.72	22.87	22.77	23.00	1
		1	49	22.94	22.88	22.87	23.00	1
		25	0	21.58	21.66	21.55	22.00	2
		25	12	21.58	21.56	21.47	22.00	2
		25	25	21.61	21.72	21.45	22.00	2
		50	0	21.50	21.65	21.54	22.00	2

LTE Band 25								
BW(MHz)	Modulation	RB Size	RB Offset	Conducted power (dBm)			Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
Frequency (MHz)				1852.5	1882.5	1912.5		
Channel				26065	26365	26665		
5	QPSK	1	0	23.05	23.08	23.03	24.00	0
		1	12	22.95	23.08	23.00	24.00	0
		1	24	23.05	22.99	23.00	24.00	0
		12	0	22.93	22.86	22.85	23.00	1
		12	6	22.85	22.90	22.73	23.00	1
		12	13	22.89	22.84	22.83	23.00	1
		25	0	22.83	22.77	22.91	23.00	1
5	16-QAM	1	0	22.95	22.82	22.84	23.00	1
		1	12	22.84	22.89	22.86	23.00	1
		1	24	22.93	22.83	22.85	23.00	1
		12	0	21.53	21.54	21.60	22.00	2
		12	6	21.60	21.62	21.42	22.00	2
		12	13	21.49	21.51	21.55	22.00	2
		25	0	21.57	21.56	21.44	22.00	2

LTE Band 25								
BW(MHz)	Modulation	RB Size	RB Offset	Conducted power (dBm)			Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
Frequency (MHz)				1851.5	1882.5	1913.5		
Channel				26055	26365	26675		
3	QPSK	1	0	23.07	23.19	23.08	24.00	0
		1	7	23.06	22.99	23.02	24.00	0
		1	14	23.04	23.00	22.99	24.00	0
		8	0	22.83	22.81	22.78	23.00	1
		8	4	22.85	22.75	22.84	23.00	1
		8	7	22.81	22.91	22.87	23.00	1
		15	0	22.89	22.93	22.79	23.00	1
3	16-QAM	1	0	22.79	22.83	22.82	23.00	1
		1	7	22.83	22.92	22.82	23.00	1
		1	14	22.87	22.75	22.85	23.00	1
		8	0	21.58	21.56	21.53	22.00	2
		8	4	21.65	21.68	21.50	22.00	2
		8	7	21.55	21.50	21.55	22.00	2
		15	0	21.59	21.72	21.49	22.00	2

LTE Band 25								
BW(MHz)	Modulation	RB Size	RB Offset	Conducted power (dBm)			Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
Frequency (MHz)				1850.7	1882.5	1914.3		
Channel				26047	26365	26683		
1.4	QPSK	1	0	23.11	23.08	22.97	24.00	0
		1	2	22.97	23.10	23.03	24.00	0
		1	5	23.16	23.10	23.09	24.00	0
		3	0	22.89	22.82	22.84	24.00	0
		3	2	22.81	22.90	22.89	24.00	0
		3	3	22.84	22.92	22.79	24.00	0
		6	0	22.86	22.86	22.71	23.00	1
1.4	16-QAM	1	0	22.81	22.79	22.89	23.00	1
		1	2	22.75	22.80	22.78	23.00	1
		1	5	22.80	22.96	22.82	23.00	1
		3	0	21.52	21.58	21.48	23.00	1
		3	2	21.49	21.57	21.55	23.00	1
		3	3	21.59	21.64	21.44	23.00	1
		6	0	21.57	21.64	21.44	22.00	2

LTE Band 26_FCC								
BW(MHz)	Modulation	RB Size	RB Offset	Conducted power (dBm)			Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
Frequency (MHz)				821.5	831.5	841.5		
Channel				26765	26865	26965		
15	QPSK	1	0	24.14	24.11	23.92	25.00	0
		1	36	24.04	23.99	23.83	25.00	0
		1	74	24.02	23.90	23.74	25.00	0
		36	0	23.76	23.65	23.52	24.00	1
		36	18	23.74	23.76	23.58	24.00	1
		36	37	23.81	23.79	23.63	24.00	1
		75	0	23.77	23.73	23.58	24.00	1
15	16-QAM	1	0	23.80	23.72	23.58	24.00	1
		1	36	23.74	23.76	23.53	24.00	1
		1	74	23.85	23.64	23.60	24.00	1
		36	0	22.49	22.43	22.36	23.00	2
		36	18	22.47	22.42	22.13	23.00	2
		36	37	22.62	22.42	22.37	23.00	2
		75	0	22.50	22.44	22.34	23.00	2

LTE Band 26_FCC								
BW(MHz)	Modulation	RB Size	RB Offset	Conducted power (dBm)			Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
Frequency (MHz)				819	831.5	844		
Channel				26740	26865	26990		
10	QPSK	1	0	24.02	23.98	23.84	25.00	0
		1	25	23.89	23.86	23.69	25.00	0
		1	49	23.96	24.01	23.77	25.00	0
		25	0	23.69	23.83	23.65	24.00	1
		25	12	23.81	23.75	23.58	24.00	1
		25	25	23.80	23.78	23.53	24.00	1
		50	0	23.73	23.69	23.45	24.00	1
10	16-QAM	1	0	23.73	23.70	23.54	24.00	1
		1	25	23.77	23.69	23.57	24.00	1
		1	49	23.70	23.66	23.44	24.00	1
		25	0	22.47	22.43	22.33	23.00	2
		25	12	22.48	22.48	22.35	23.00	2
		25	25	22.40	22.58	22.35	23.00	2
		50	0	22.43	22.45	22.32	23.00	2

LTE Band 26_FCC								
BW(MHz)	Modulation	RB Size	RB Offset	Conducted power (dBm)			Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
Frequency (MHz)				816.5	831.5	846.5		
Channel				26715	26865	27015		
5	QPSK	1	0	23.99	24.05	23.80	25.00	0
		1	12	24.02	23.98	23.70	25.00	0
		1	24	24.03	23.92	23.89	25.00	0
		12	0	23.83	23.73	23.56	24.00	1
		12	6	23.76	23.84	23.54	24.00	1
		12	13	23.77	23.63	23.59	24.00	1
		25	0	23.74	23.73	23.53	24.00	1
5	16-QAM	1	0	23.72	23.72	23.44	24.00	1
		1	12	23.82	23.76	23.64	24.00	1
		1	24	23.81	23.70	23.48	24.00	1
		12	0	22.53	22.42	22.24	23.00	2
		12	6	22.47	22.43	22.21	23.00	2
		12	13	22.50	22.48	22.28	23.00	2
		25	0	22.51	22.50	22.27	23.00	2

LTE Band 26_FCC								
BW(MHz)	Modulation	RB Size	RB Offset	Conducted power (dBm)			Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
Frequency (MHz)				815.5	831.5	847.5		
Channel				26705	26865	27025		
3	QPSK	1	0	23.96	24.03	23.86	25.00	0
		1	7	23.99	23.84	23.80	25.00	0
		1	14	24.01	23.92	23.82	25.00	0
		8	0	23.75	23.78	23.59	24.00	1
		8	4	23.80	23.80	23.55	24.00	1
		8	7	23.74	23.67	23.54	24.00	1
		15	0	23.74	23.80	23.61	24.00	1
3	16-QAM	1	0	23.75	23.79	23.55	24.00	1
		1	7	23.83	23.76	23.62	24.00	1
		1	14	23.78	23.84	23.52	24.00	1
		8	0	22.47	22.54	22.32	23.00	2
		8	4	22.44	22.53	22.34	23.00	2
		8	7	22.46	22.40	22.24	23.00	2
		15	0	22.47	22.40	22.28	23.00	2

LTE Band 26_FCC								
BW(MHz)	Modulation	RB Size	RB Offset	Conducted power (dBm)			Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
Frequency (MHz)				814.7	831.5	848.3		
Channel				26697	26865	27033		
1.4	QPSK	1	0	24.08	23.95	23.83	25.00	0
		1	2	23.93	23.95	23.69	25.00	0
		1	5	23.92	23.95	23.84	25.00	0
		3	0	23.70	23.76	23.44	25.00	0
		3	2	23.79	23.73	23.48	25.00	0
		3	3	23.74	23.69	23.61	25.00	0
		6	0	23.68	23.68	23.52	24.00	1
1.4	16-QAM	1	0	23.87	23.74	23.63	24.00	1
		1	2	23.71	23.67	23.56	24.00	1
		1	5	23.71	23.73	23.63	24.00	1
		3	0	22.49	22.41	22.33	24.00	1
		3	2	22.51	22.55	22.35	24.00	1
		3	3	22.55	22.51	22.26	24.00	1
		6	0	22.56	22.51	22.15	23.00	2

LTE Band 30								
BW(MHz)	Modulation	RB Size	RB Offset	Conducted power (dBm)			Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
Frequency (MHz)				2310	2310	2310		
Channel				27710	27710	27710		
10	QPSK	1	0	22.08	22.08	22.08	23.00	0
		1	25	21.94	21.94	21.94	23.00	0
		1	49	21.98	21.98	21.98	23.00	0
		25	0	21.84	21.84	21.84	22.00	1
		25	12	21.73	21.73	21.73	22.00	1
		25	25	21.71	21.71	21.71	22.00	1
		50	0	21.72	21.72	21.72	22.00	1
10	16-QAM	1	0	21.76	21.76	21.76	22.00	1
		1	25	21.79	21.79	21.79	22.00	1
		1	49	21.76	21.76	21.76	22.00	1
		25	0	20.49	20.49	20.49	21.00	2
		25	12	20.44	20.44	20.44	21.00	2
		25	25	20.49	20.49	20.49	21.00	2
		50	0	20.49	20.49	20.49	21.00	2

LTE Band 30								
BW(MHz)	Modulation	RB Size	RB Offset	Conducted power (dBm)			Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
Frequency (MHz)				2307.5	2310	2312.5		
Channel				27685	27710	27735		
5	QPSK	1	0	21.97	21.96	21.85	23.00	0
		1	12	21.90	22.06	21.97	23.00	0
		1	24	21.87	21.86	21.98	23.00	0
		12	0	21.76	21.73	21.69	22.00	1
		12	6	21.73	21.74	21.84	22.00	1
		12	13	21.81	21.71	21.72	22.00	1
		25	0	21.73	21.78	21.73	22.00	1
5	16-QAM	1	0	21.68	21.81	21.61	22.00	1
		1	12	21.61	21.72	21.83	22.00	1
		1	24	21.70	21.68	21.76	22.00	1
		12	0	20.54	20.30	20.34	21.00	2
		12	6	20.41	20.37	20.38	21.00	2
		12	13	20.47	20.33	20.56	21.00	2
		25	0	20.51	20.35	20.34	21.00	2

LTE Band 66								
BW(MHz)	Modulation	RB Size	RB Offset	Conducted power (dBm)			Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
Frequency (MHz)				1720	1745	1770		
Channel				132072	132322	132572		
20	QPSK	1	0	23.09	23.21	23.41	24.00	0
		1	50	22.93	23.16	23.36	24.00	0
		1	99	22.86	23.13	23.30	24.00	0
		50	0	22.77	22.82	22.86	23.00	1
		50	25	22.78	22.72	22.82	23.00	1
		50	50	22.67	22.86	22.86	23.00	1
		100	0	22.69	22.76	22.84	23.00	1
20	16-QAM	1	0	22.71	22.85	22.91	23.00	1
		1	50	22.73	22.76	22.99	23.00	1
		1	99	22.73	22.88	22.83	23.00	1
		50	0	21.41	21.50	21.83	22.00	2
		50	25	21.49	21.46	21.78	22.00	2
		50	50	21.44	21.57	21.76	22.00	2
		100	0	21.48	21.50	21.71	22.00	2

LTE Band 66								
BW(MHz)	Modulation	RB Size	RB Offset	Conducted power (dBm)			Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
Frequency (MHz)				1717.5	1745	1772.5		
Channel				132047	132322	132597		
15	QPSK	1	0	22.96	22.96	23.27	24.00	0
		1	36	23.04	23.01	23.21	24.00	0
		1	74	22.98	22.99	23.25	24.00	0
		36	0	22.71	22.79	22.82	23.00	1
		36	18	22.69	22.92	22.98	23.00	1
		36	37	22.65	22.87	22.87	23.00	1
		75	0	22.73	22.93	22.94	23.00	1
15	16-QAM	1	0	22.74	22.91	22.89	23.00	1
		1	36	22.82	22.97	22.84	23.00	1
		1	74	22.69	22.77	22.83	23.00	1
		36	0	21.44	21.49	21.74	22.00	2
		36	18	21.38	21.55	21.71	22.00	2
		36	37	21.37	21.65	21.70	22.00	2
		75	0	21.37	21.52	21.81	22.00	2

LTE Band 66								
BW(MHz)	Modulation	RB Size	RB Offset	Conducted power (dBm)			Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
Frequency (MHz)				1715	1745	1775		
Channel				132022	132322	132622		
10	QPSK	1	0	23.03	23.04	23.25	24.00	0
		1	25	22.88	23.06	23.28	24.00	0
		1	49	22.93	23.09	23.34	24.00	0
		25	0	22.79	22.80	22.99	23.00	1
		25	12	22.65	22.80	22.85	23.00	1
		25	25	22.73	22.88	22.85	23.00	1
		50	0	22.71	22.87	22.88	23.00	1
10	16-QAM	1	0	22.76	22.78	22.99	23.00	1
		1	25	22.81	22.91	22.84	23.00	1
		1	49	22.78	22.82	22.84	23.00	1
		25	0	21.40	21.57	21.62	22.00	2
		25	12	21.34	21.64	21.73	22.00	2
		25	25	21.56	21.56	21.69	22.00	2
		50	0	21.35	21.46	21.66	22.00	2

LTE Band 66								
BW(MHz)	Modulation	RB Size	RB Offset	Conducted power (dBm)			Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
Frequency (MHz)				1712.5	1745	1777.5		
Channel				131997	132322	132647		
5	QPSK	1	0	22.89	23.07	23.24	24.00	0
		1	12	22.93	23.13	23.13	24.00	0
		1	24	22.90	23.18	23.35	24.00	0
		12	0	22.72	22.82	22.88	23.00	1
		12	6	22.70	22.71	22.87	23.00	1
		12	13	22.76	22.82	22.83	23.00	1
		25	0	22.64	22.82	23.00	23.00	1
5	16-QAM	1	0	22.76	22.79	22.83	23.00	1
		1	12	22.73	22.82	22.81	23.00	1
		1	24	22.77	22.81	22.83	23.00	1
		12	0	21.38	21.50	21.79	22.00	2
		12	6	21.41	21.54	21.75	22.00	2
		12	13	21.40	21.60	21.77	22.00	2
		25	0	21.40	21.55	21.69	22.00	2

LTE Band 66								
BW(MHz)	Modulation	RB Size	RB Offset	Conducted power (dBm)			Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
Frequency (MHz)				1711.5	1745	1778.5		
Channel				131987	132322	132657		
3	QPSK	1	0	22.89	22.94	23.24	24.00	0
		1	7	22.91	23.06	23.23	24.00	0
		1	14	22.96	23.16	23.22	24.00	0
		8	0	22.81	22.86	22.91	23.00	1
		8	4	22.64	22.84	22.93	23.00	1
		8	7	22.73	22.87	22.99	23.00	1
		15	0	22.65	22.82	22.84	23.00	1
3	16-QAM	1	0	22.86	22.93	22.97	23.00	1
		1	7	22.75	22.85	22.87	23.00	1
		1	14	22.67	22.93	22.99	23.00	1
		8	0	21.42	21.48	21.88	22.00	2
		8	4	21.45	21.49	21.80	22.00	2
		8	7	21.37	21.53	21.66	22.00	2
		15	0	21.45	21.52	21.64	22.00	2

LTE Band 66								
BW(MHz)	Modulation	RB Size	RB Offset	Conducted power (dBm)			Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
Frequency (MHz)				1710.7	1745	1779.3		
Channel				131979	132322	132665		
1.4	QPSK	1	0	22.91	23.03	23.28	24.00	0
		1	2	23.06	23.07	23.23	24.00	0
		1	5	22.88	23.15	23.27	24.00	0
		3	0	22.74	22.96	22.93	24.00	0
		3	2	22.77	22.91	23.01	24.00	0
		3	3	22.65	22.94	23.05	24.00	0
		6	0	22.72	22.86	22.87	23.00	1
1.4	16-QAM	1	0	22.74	22.80	22.83	23.00	1
		1	2	22.77	22.78	22.81	23.00	1
		1	5	22.80	22.88	22.96	23.00	1
		3	0	21.46	21.54	21.75	23.00	1
		3	2	21.56	21.59	21.74	23.00	1
		3	3	21.42	21.43	21.87	23.00	1
		6	0	21.37	21.58	21.62	22.00	2

LTE Band 71								
BW(MHz)	Modulation	RB Size	RB Offset	Conducted power (dBm)			Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
Frequency (MHz)				673	680.5	688		
Channel				133222	133297	133372		
20	QPSK	1	0	24.41	24.29	24.21	25.00	0
		1	50	24.19	24.11	24.12	25.00	0
		1	99	24.25	24.22	24.14	25.00	0
		50	0	23.96	23.89	23.90	24.00	1
		50	25	23.92	23.99	23.95	24.00	1
		50	50	23.97	23.93	23.85	24.00	1
		100	0	23.88	23.97	23.85	24.00	1
20	16-QAM	1	0	23.91	23.80	23.88	24.00	1
		1	50	23.95	23.94	23.87	24.00	1
		1	99	23.91	23.92	23.81	24.00	1
		50	0	22.74	22.65	22.67	23.00	2
		50	25	22.77	22.65	22.48	23.00	2
		50	50	22.72	22.69	22.60	23.00	2
		100	0	22.76	22.63	22.56	23.00	2

LTE Band 71								
BW(MHz)	Modulation	RB Size	RB Offset	Conducted power (dBm)			Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
Frequency (MHz)				670.5	680.5	690.5		
Channel				133197	133297	133397		
15	QPSK	1	0	24.35	24.27	24.03	25.00	0
		1	36	24.25	24.11	24.00	25.00	0
		1	74	24.20	24.14	24.08	25.00	0
		36	0	23.95	23.87	23.80	24.00	1
		36	18	23.97	23.85	23.77	24.00	1
		36	37	23.94	23.89	23.96	24.00	1
		75	0	23.97	23.91	23.86	24.00	1
15	16-QAM	1	0	23.86	23.90	23.92	24.00	1
		1	36	23.93	23.91	23.80	24.00	1
		1	74	23.88	23.96	23.94	24.00	1
		36	0	22.82	22.68	22.47	23.00	2
		36	18	22.68	22.68	22.67	23.00	2
		36	37	22.71	22.55	22.56	23.00	2
		75	0	22.87	22.63	22.42	23.00	2

LTE Band 71								
BW(MHz)	Modulation	RB Size	RB Offset	Conducted power (dBm)			Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
Frequency (MHz)				668	680.5	693		
Channel				133172	133297	133422		
10	QPSK	1	0	24.14	24.12	23.96	25.00	0
		1	25	24.26	24.14	24.03	25.00	0
		1	49	24.27	24.05	24.10	25.00	0
		25	0	23.94	23.87	23.82	24.00	1
		25	12	23.95	23.82	23.80	24.00	1
		25	25	23.88	23.93	23.80	24.00	1
		50	0	23.87	23.98	23.85	24.00	1
10	16-QAM	1	0	23.95	23.97	23.80	24.00	1
		1	25	23.85	23.82	23.78	24.00	1
		1	49	23.99	23.89	23.88	24.00	1
		25	0	22.66	22.64	22.50	23.00	2
		25	12	22.78	22.62	22.59	23.00	2
		25	25	22.72	22.72	22.53	23.00	2
		50	0	22.68	22.57	22.53	23.00	2

LTE Band 71								
BW(MHz)	Modulation	RB Size	RB Offset	Conducted power (dBm)			Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
Frequency (MHz)				665.5	680.5	695.5		
Channel				133147	133297	133447		
5	QPSK	1	0	24.19	24.12	24.12	25.00	0
		1	12	24.22	24.11	24.14	25.00	0
		1	24	24.24	24.11	23.97	25.00	0
		12	0	23.98	23.98	23.87	24.00	1
		12	6	23.94	23.96	23.97	24.00	1
		12	13	23.94	23.93	23.81	24.00	1
		25	0	23.03	23.98	23.86	24.00	1
5	16-QAM	1	0	23.95	23.96	23.85	24.00	1
		1	12	23.91	23.87	23.80	24.00	1
		1	24	23.99	23.82	23.77	24.00	1
		12	0	22.74	22.52	22.48	23.00	2
		12	6	22.63	22.54	22.60	23.00	2
		12	13	22.83	22.50	22.56	23.00	2
		25	0	22.82	22.66	22.55	23.00	2

5.3 TDD LTE

LTE Band 38								
BW(MHz)	Modulation	RB Size	RB Offset	Conducted power (dBm)			Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
Frequency (MHz)				2580	2595	2610		
Channel				37850	38000	38150		
20	QPSK	1	0	23.33	23.37	23.35	24.00	0
		1	50	23.21	23.11	23.22	24.00	0
		1	99	23.25	23.12	23.14	24.00	0
		50	0	22.90	22.96	22.93	23.00	1
		50	25	22.94	22.90	22.96	23.00	1
		50	50	22.89	22.88	22.95	23.00	1
		100	0	22.92	22.94	22.95	23.00	1
20	16-QAM	1	0	22.97	22.99	22.92	23.00	1
		1	50	22.88	22.92	22.97	23.00	1
		1	99	22.97	22.87	22.93	23.00	1
		50	0	21.58	21.84	21.71	22.00	2
		50	25	21.68	21.72	21.73	22.00	2
		50	50	21.62	21.66	21.62	22.00	2
		100	0	21.58	21.71	21.66	22.00	2

LTE Band 38								
BW(MHz)	Modulation	RB Size	RB Offset	Conducted power (dBm)			Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
Frequency (MHz)				2577.5	2595	2612.5		
Channel				37825	38000	38175		
15	QPSK	1	0	23.12	23.16	23.29	24.00	0
		1	36	23.18	23.34	23.16	24.00	0
		1	74	23.24	23.22	23.20	24.00	0
		36	0	22.94	22.93	22.92	23.00	1
		36	18	22.91	22.89	22.97	23.00	1
		36	37	22.97	22.91	22.97	23.00	1
		75	0	22.88	22.86	22.85	23.00	1
15	16-QAM	1	0	22.95	22.94	22.93	23.00	1
		1	36	22.91	22.96	22.90	23.00	1
		1	74	22.94	23.00	22.92	23.00	1
		36	0	21.63	21.64	21.77	22.00	2
		36	18	21.69	21.60	21.71	22.00	2
		36	37	21.69	21.77	21.66	22.00	2
		75	0	21.64	21.61	21.69	22.00	2

LTE Band 38								
BW(MHz)	Modulation	RB Size	RB Offset	Conducted power (dBm)			Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
Frequency (MHz)				2575	2595	2615		
Channel				37800	38000	38200		
10	QPSK	1	0	23.30	23.26	23.27	24.00	0
		1	25	23.05	23.30	23.32	24.00	0
		1	49	23.09	23.26	23.19	24.00	0
		25	0	22.96	22.89	22.95	23.00	1
		25	12	22.87	22.98	23.00	23.00	1
		25	25	22.90	22.91	22.99	23.00	1
		50	0	22.92	22.88	22.94	23.00	1
10	16-QAM	1	0	22.89	22.90	22.91	23.00	1
		1	25	22.95	22.98	22.91	23.00	1
		1	49	22.98	22.91	22.98	23.00	1
		25	0	21.79	21.71	21.82	22.00	2
		25	12	21.59	21.73	21.75	22.00	2
		25	25	21.65	21.60	21.67	22.00	2
		50	0	21.59	21.70	21.70	22.00	2

LTE Band 38								
BW(MHz)	Modulation	RB Size	RB Offset	Conducted power (dBm)			Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
Frequency (MHz)				2572.5	2595	2617.5		
Channel				37775	38000	38225		
5	QPSK	1	0	23.11	23.22	23.25	24.00	0
		1	12	23.24	23.22	23.26	24.00	0
		1	24	23.19	23.13	23.30	24.00	0
		12	0	22.89	22.97	22.92	23.00	1
		12	6	22.96	22.89	22.92	23.00	1
		12	13	22.88	22.81	22.91	23.00	1
		25	0	23.00	22.87	22.95	23.00	1
5	16-QAM	1	0	22.95	22.99	23.00	23.00	1
		1	12	22.95	22.92	22.94	23.00	1
		1	24	22.98	22.94	22.98	23.00	1
		12	0	21.72	21.74	21.57	22.00	2
		12	6	21.77	21.71	21.65	22.00	2
		12	13	21.66	21.70	21.67	22.00	2
		25	0	21.79	21.72	21.75	22.00	2

LTE Band 41_PC3										
BW(MHz)	Modulation	RB Size	RB Offset	Conducted power (dBm)					Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
Frequency (MHz)				2506	2549.5	2593	2636.5	2680		
Channel				39750	40185	40620	41055	41490		
20	QPSK	1	0	23.19	23.24	23.23	23.44	23.65	24.00	0
		1	50	23.08	23.10	23.01	23.32	23.52	24.00	0
		1	99	22.92	23.11	23.03	23.29	23.50	24.00	0
		50	0	22.94	22.88	22.85	22.84	22.82	23.00	1
		50	25	22.75	22.83	22.93	22.86	22.88	23.00	1
		50	50	22.88	22.93	22.84	22.94	22.91	23.00	1
		100	0	22.76	22.95	22.93	22.88	22.83	23.00	1
20	16-QAM	1	0	22.84	22.96	22.85	22.83	22.92	23.00	1
		1	50	22.89	22.95	22.96	22.98	22.93	23.00	1
		1	99	22.81	22.87	22.92	22.97	22.91	23.00	1
		50	0	21.64	21.54	21.67	21.84	21.85	22.00	2
		50	25	21.55	21.48	21.62	21.73	21.98	22.00	2
		50	50	21.42	21.66	21.52	21.73	22.00	22.00	2
		100	0	21.50	21.66	21.64	21.81	21.98	22.00	2

LTE Band 41_PC3										
BW(MHz)	Modulation	RB Size	RB Offset	Conducted power (dBm)					Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
Frequency (MHz)				2503.5	2548.3	2593	2637.8	2682.5		
Channel				39725	40173	40620	41068	41515		
15	QPSK	1	0	23.13	23.17	23.03	23.33	23.48	24.00	0
		1	36	23.01	23.02	23.16	23.35	23.56	24.00	0
		1	74	23.06	23.14	23.03	23.20	23.45	24.00	0
		36	0	22.85	22.90	22.79	22.88	22.92	23.00	1
		36	18	22.70	22.88	22.95	22.92	22.93	23.00	1
		36	37	22.82	22.89	22.77	22.96	22.88	23.00	1
		75	0	22.86	22.97	22.86	22.99	22.92	23.00	1
15	16-QAM	1	0	22.87	22.87	22.93	22.97	22.86	23.00	1
		1	36	22.71	22.90	23.00	22.82	22.85	23.00	1
		1	74	22.93	22.79	22.82	22.99	22.86	23.00	1
		36	0	21.59	21.71	21.53	21.70	22.00	22.00	2
		36	18	21.50	21.59	21.48	21.72	21.93	22.00	2
		36	37	21.45	21.65	21.54	21.76	21.99	22.00	2
		75	0	21.51	21.53	21.54	21.78	21.92	22.00	2

LTE Band 41_PC3										
BW(MHz)	Modulation	RB Size	RB Offset	Conducted power (dBm)					Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
Frequency (MHz)				2501	2547	2593	2639	2685		
Channel				39700	40160	40620	41080	41540		
10	QPSK	1	0	22.99	23.15	23.10	23.34	23.51	24.00	0
		1	25	23.00	23.18	23.02	23.29	23.55	24.00	0
		1	49	22.90	22.99	23.17	23.40	23.57	24.00	0
		25	0	22.76	22.87	22.85	22.96	22.99	23.00	1
		25	12	22.87	22.87	22.94	22.83	22.95	23.00	1
		25	25	22.76	22.90	22.86	22.96	22.89	23.00	1
		50	0	22.88	22.85	22.79	22.86	22.81	23.00	1
10	16-QAM	1	0	22.73	22.78	22.78	22.91	22.94	23.00	1
		1	25	22.96	22.93	22.97	22.92	22.96	23.00	1
		1	49	22.90	22.88	22.89	22.86	22.89	23.00	1
		25	0	21.61	21.70	21.54	21.86	21.89	22.00	2
		25	12	21.59	21.63	21.59	21.71	21.88	22.00	2
		25	25	21.48	21.58	21.59	21.74	22.00	22.00	2
		50	0	21.58	21.63	21.54	21.87	21.96	22.00	2

LTE Band 41_PC3										
BW(MHz)	Modulation	RB Size	RB Offset	Conducted power (dBm)					Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
Frequency (MHz)				2498.5	2545.8	2593	2640.3	2687.5		
Channel				39675	40148	40620	41093	41565		
5	QPSK	1	0	22.92	23.18	23.02	23.24	23.39	24.00	0
		1	12	23.04	23.22	23.10	23.23	23.58	24.00	0
		1	24	23.05	23.15	22.99	23.24	23.37	24.00	0
		12	0	22.73	22.77	22.83	22.91	22.84	23.00	1
		12	6	22.72	22.89	22.89	22.96	22.94	23.00	1
		12	13	22.71	22.88	22.73	22.90	22.92	23.00	1
		25	0	22.76	22.86	22.92	22.82	22.94	23.00	1
5	16-QAM	1	0	22.92	22.95	22.88	22.82	22.83	23.00	1
		1	12	22.75	22.95	22.93	22.86	22.94	23.00	1
		1	24	22.91	22.91	22.98	22.81	22.95	23.00	1
		12	0	21.63	21.56	21.64	21.73	21.91	22.00	2
		12	6	21.50	21.50	21.62	21.78	22.00	22.00	2
		12	13	21.46	21.65	21.65	21.92	21.91	22.00	2
		25	0	21.50	21.61	21.58	21.77	21.98	22.00	2

LTE Band 48									
BW(MHz)	Modulation	RB Size	RB Offset	Conducted power (dBm)				Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
Frequency (MHz)				3560	3609	3641	3690		
Channel				55340	55830	56150	56640		
20	QPSK	1	0	20.79	21.23	21.08	20.88	22.00	0
		1	50	20.58	21.17	20.93	20.74	22.00	0
		1	99	20.70	21.02	20.96	20.73	22.00	0
		50	0	20.33	20.89	20.68	20.51	21.00	1
		50	25	20.39	20.82	20.75	20.53	21.00	1
		50	50	20.44	20.92	20.72	20.62	21.00	1
		100	0	20.43	20.78	20.67	20.52	21.00	1
20	16-QAM	1	0	20.40	20.95	20.74	20.50	21.00	1
		1	50	20.38	20.89	20.73	20.44	21.00	1
		1	99	20.44	20.98	20.75	20.58	21.00	1
		50	0	19.18	19.51	19.50	19.29	20.00	2
		50	25	19.12	19.55	19.51	19.22	20.00	2
		50	50	19.09	19.63	19.40	19.21	20.00	2
		100	0	19.06	19.66	19.43	19.23	20.00	2

LTE Band 48									
BW(MHz)	Modulation	RB Size	RB Offset	Conducted power (dBm)				Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
Frequency (MHz)				3557.5	3608	3642	3692.5		
Channel				55315	55820	56160	56665		
15	QPSK	1	0	20.72	21.02	20.96	20.65	22.00	0
		1	36	20.63	21.04	21.03	20.69	22.00	0
		1	74	20.69	21.10	20.80	20.72	22.00	0
		36	0	20.44	20.82	20.80	20.54	21.00	1
		36	18	20.35	20.89	20.77	20.43	21.00	1
		36	37	20.41	20.90	20.60	20.42	21.00	1
		75	0	20.42	20.90	20.61	20.55	21.00	1
15	16-QAM	1	0	20.45	20.90	20.63	20.49	21.00	1
		1	36	20.47	20.92	20.70	20.42	21.00	1
		1	74	20.35	20.95	20.79	20.54	21.00	1
		36	0	19.01	19.60	19.40	19.27	20.00	2
		36	18	19.10	19.59	19.48	19.22	20.00	2
		36	37	19.07	19.62	19.39	19.09	20.00	2
		75	0	19.22	19.61	19.30	19.23	20.00	2

LTE Band 48									
BW(MHz)	Modulation	RB Size	RB Offset	Conducted power (dBm)				Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
Frequency (MHz)				3555	3607.5	3642.5	3695		
Channel				55290	55815	56165	56690		
10	QPSK	1	0	20.63	21.03	20.94	20.79	22.00	0
		1	25	20.57	21.08	20.99	20.69	22.00	0
		1	49	20.60	21.15	21.00	20.83	22.00	0
		25	0	20.47	20.95	20.59	20.43	21.00	1
		25	12	20.41	20.85	20.72	20.45	21.00	1
		25	25	20.45	20.92	20.76	20.48	21.00	1
		50	0	20.40	20.85	20.58	20.53	21.00	1
10	16-QAM	1	0	20.45	20.89	20.65	20.52	21.00	1
		1	25	20.44	20.84	20.73	20.64	21.00	1
		1	49	20.47	20.93	20.72	20.53	21.00	1
		25	0	19.22	19.57	19.35	19.23	20.00	2
		25	12	19.05	19.56	19.36	19.22	20.00	2
		25	25	19.16	19.61	19.51	19.11	20.00	2
		50	0	19.09	19.60	19.35	19.33	20.00	2

LTE Band 48									
BW(MHz)	Modulation	RB Size	RB Offset	Conducted power (dBm)				Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
Frequency (MHz)				3552.5	3607	3643	3697.5		
Channel				55265	55810	56170	56715		
5	QPSK	1	0	20.56	21.15	20.95	20.74	22.00	0
		1	12	20.68	21.12	20.99	20.72	22.00	0
		1	24	20.61	21.00	20.88	20.72	22.00	0
		12	0	20.33	20.73	20.63	20.48	21.00	1
		12	6	20.42	20.92	20.83	20.53	21.00	1
		12	13	20.36	20.87	20.76	20.58	21.00	1
		25	0	20.46	20.88	20.76	20.49	21.00	1
5	16-QAM	1	0	20.32	20.94	20.75	20.59	21.00	1
		1	12	20.53	20.81	20.72	20.53	21.00	1
		1	24	20.38	20.91	20.63	20.52	21.00	1
		12	0	19.17	19.51	19.46	19.26	20.00	2
		12	6	19.10	19.54	19.37	19.11	20.00	2
		12	13	19.26	19.63	19.40	19.20	20.00	2
		25	0	19.27	19.50	19.54	19.19	20.00	2

6 SUMMARY OF RESULTS

6.1 Decision rules

Reported measurement data comply with Test Methodology in section 1.1.
Determining compliance shall be based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.

6.2 Summary of SAR Results

Band	Position	Distance (mm)	Channel	Freq. (MHz)	Max. Rated Avg. Power + Max. Tolerance (dBm)	Measured Avg. Power (dBm)	Scaling	Averaged SAR over 1g (W/kg)		ID
								Measured	Reported	
WCDMA Band II	Bottom Surface	0	9262	1852.4	24.5	23.82	116.95%	0.015	0.018	001
WCDMA Band II	Bottom Surface	0	9400	1880	24.5	23.75	118.85%	0.013	0.015	-
WCDMA Band II	Bottom Surface	0	9538	1907.6	24.5	23.54	124.74%	0.010	0.012	-
WCDMA Band IV	Bottom Surface	0	1312	1712.4	24.5	23.75	118.85%	0.005	0.006	-
WCDMA Band IV	Bottom Surface	0	1412	1732.4	24.5	23.85	116.14%	0.007	0.008	002
WCDMA Band IV	Bottom Surface	0	1513	1752.6	24.5	23.70	120.23%	0.005	0.006	-
WCDMA Band V	Bottom Surface	0	4132	826.4	24.5	23.58	123.59%	0.019	0.024	-
WCDMA Band V	Bottom Surface	0	4183	836.6	24.5	23.68	120.78%	0.018	0.022	-
WCDMA Band V	Bottom Surface	0	4233	846.6	24.5	23.72	119.67%	0.021	0.025	003

Band	Bandwidth (MHz)	Modulation	RB Size	RB start	Position	Distance (mm)	Channel	Freq. (MHz)	Max. Rated Avg. Power + Max. Tolerance (dBm)	Measured Avg. Power (dBm)	Scaling	Averaged SAR over 1g (W/kg)		ID
												Measured	Reported	
LTE Band 2	20MHz	QPSK	1	0	Bottom Surface	0	18700	1860	24.00	23.28	118.03%	0.006	0.007	-
LTE Band 2			1	0	Bottom Surface	0	18900	1880	24.00	23.30	117.49%	0.007	0.008	004
LTE Band 2			1	0	Bottom Surface	0	19100	1900	24.00	23.18	120.78%	0.005	0.006	-
LTE Band 2			50	25	Bottom Surface	0	18900	1860	23.00	22.95	101.16%	0.004	0.004	-
LTE Band 4	20MHz	QPSK	1	0	Bottom Surface	0	20050	1720	24.00	23.05	124.45%	0.005	0.006	-
LTE Band 4			1	0	Bottom Surface	0	20175	1732.5	24.00	23.22	119.67%	0.006	0.007	-
LTE Band 4			1	0	Bottom Surface	0	20300	1745	24.00	23.32	116.95%	0.008	0.009	005
LTE Band 4			50	25	Bottom Surface	0	20300	1745	23.00	22.98	100.46%	0.007	0.007	-
LTE Band 5	10MHz	QPSK	1	0	Bottom Surface	0	20450	829	25.00	23.08	155.60%	0.020	0.031	-
LTE Band 5			1	0	Bottom Surface	0	20525	836.5	25.00	23.11	154.53%	0.025	0.039	006
LTE Band 5			1	0	Bottom Surface	0	20600	844	25.00	23.05	156.68%	0.022	0.034	-
LTE Band 5			25	25	Bottom Surface	0	20525	836.5	24.00	22.81	131.52%	0.021	0.028	-
LTE Band 7	20MHz	QPSK	1	0	Bottom Surface	0	20850	2510	24.00	23.04	124.74%	0.006	0.007	-
LTE Band 7			1	0	Bottom Surface	0	21100	2535	24.00	23.13	122.18%	0.006	0.008	-
LTE Band 7			1	0	Bottom Surface	0	21350	2560	24.00	23.14	121.90%	0.008	0.010	007
LTE Band 7			50	25	Bottom Surface	0	21350	2560	23.00	22.89	102.57%	0.005	0.005	-
LTE Band 12	10MHz	QPSK	1	0	Bottom Surface	0	23060	704	25.00	23.64	136.77%	0.012	0.016	-
LTE Band 12			1	0	Bottom Surface	0	23095	707.5	25.00	23.71	134.59%	0.014	0.019	-
LTE Band 12			1	0	Bottom Surface	0	23130	711	25.00	23.80	131.83%	0.017	0.022	008
LTE Band 12			25	12	Bottom Surface	0	23095	707.5	24.00	23.39	115.08%	0.013	0.015	-
LTE Band 13	10MHz	QPSK	1	0	Bottom Surface	0	23230	782	25.00	23.95	127.35%	0.022	0.028	009
LTE Band 13			25	0	Bottom Surface	0	23230	782	24.00	23.58	110.15%	0.020	0.022	-
LTE Band 14	10MHz	QPSK	1	0	Bottom Surface	0	23330	793	25.00	23.81	131.52%	0.023	0.030	010
LTE Band 14			25	0	Bottom Surface	0	23330	793	24.00	23.47	112.98%	0.020	0.023	-
LTE Band 17	10MHz	QPSK	1	0	Bottom Surface	0	23780	709	25.00	23.74	133.66%	0.013	0.017	-
LTE Band 17			1	0	Bottom Surface	0	23790	710	25.00	23.77	132.74%	0.014	0.019	-
LTE Band 17			1	0	Bottom Surface	0	23800	711	25.00	23.73	133.97%	0.016	0.021	011
LTE Band 17			25	25	Bottom Surface	0	23780	709	24.00	23.48	112.72%	0.010	0.011	-
LTE Band 25	20MHz	QPSK	1	0	Bottom Surface	0	26140	1860	24.00	23.21	119.95%	0.006	0.007	-
LTE Band 25			1	0	Bottom Surface	0	26365	1882.5	24.00	23.24	119.12%	0.010	0.012	012
LTE Band 25			1	0	Bottom Surface	0	26590	1905	24.00	23.19	120.50%	0.007	0.008	-
LTE Band 25			50	25	Bottom Surface	0	26365	1882.5	23.00	22.94	101.39%	0.006	0.006	-
LTE Band 26_FCC	15MHz	QPSK	1	0	Bottom Surface	0	26765	821.5	25.00	24.14	121.90%	0.021	0.026	-
LTE Band 26_FCC			1	0	Bottom Surface	0	26865	831.5	25.00	24.11	122.74%	0.024	0.029	-
LTE Band 26_FCC			1	0	Bottom Surface	0	26965	841.5	25.00	23.92	128.23%	0.025	0.032	013
LTE Band 26_FCC			36	37	Bottom Surface	0	26765	821.5	24.00	23.81	104.47%	0.018	0.019	-
LTE Band 30	10MHz	QPSK	1	0	Bottom Surface	0	27710	2310	23.00	22.08	123.59%	0.021	0.026	014
LTE Band 30			25	0	Bottom Surface	0	27710	2310	22.00	21.84	103.75%	0.016	0.017	-
LTE Band 66	20MHz	QPSK	1	0	Bottom Surface	0	132072	1720	24.00	23.09	123.31%	0.006	0.007	-
LTE Band 66			1	0	Bottom Surface	0	132322	1745	24.00	23.21	119.95%	0.007	0.008	-
LTE Band 66			1	0	Bottom Surface	0	132572	1770	24.00	23.41	114.55%	0.009	0.010	015
LTE Band 66			50	0	Bottom Surface	0	132572	1770	23.00	22.86	103.28%	0.008	0.008	-
LTE Band 71	20MHz	QPSK	1	0	Bottom Surface	0	133222	673	25.00	24.41	114.55%	0.020	0.023	016
LTE Band 71			1	0	Bottom Surface	0	133297	680.5	25.00	24.29	117.76%	0.017	0.020	-
LTE Band 71			1	0	Bottom Surface	0	133372	688	25.00	24.21	119.95%	0.015	0.018	-
LTE Band 71			50	25	Bottom Surface	0	133297	680.5	24.00	23.99	100.23%	0.015	0.015	-
LTE Band 38	20MHz	QPSK	1	0	Bottom Surface	0	37850	2580	24.00	23.33	116.68%	0.004	0.005	-
LTE Band 38			1	0	Bottom Surface	0	38000	2595	24.00	23.37	115.61%	0.006	0.007	017
LTE Band 38			1	0	Bottom Surface	0	38150	2610	24.00	23.35	116.14%	0.004	0.005	-
LTE Band 38			50	0	Bottom Surface	0	38000	2595	23.00	22.96	100.93%	0.004	0.004	-
LTE Band 41_PC3	20MHz	QPSK	1	0	Bottom Surface	0	39750	2506	24.00	23.19	120.50%	0.005	0.006	-
LTE Band 41_PC3			1	0	Bottom Surface	0	40185	2549.5	24.00	23.24	119.12%	0.006	0.007	-
LTE Band 41_PC3			1	0	Bottom Surface	0	40620	2593	24.00	23.23	119.40%	0.006	0.007	-
LTE Band 41_PC3			1	0	Bottom Surface	0	41055	2636.5	24.00	23.44	113.76%	0.006	0.007	-
LTE Band 41_PC3			1	0	Bottom Surface	0	41490	2680	24.00	23.65	108.39%	0.008	0.009	018
LTE Band 41_PC3			50	0	Bottom Surface	0	39750	2506	23.00	22.94	101.39%	0.004	0.004	-
LTE Band 48	20MHz	QPSK	1	0	Bottom Surface	0	55340	3560	22.00	20.79	132.13%	0.011	0.015	-
LTE Band 48			1	0	Bottom Surface	0	55830	3609	22.00	21.23	119.40%	0.013	0.016	019
LTE Band 48			1	0	Bottom Surface	0	56150	3641	22.00	21.08	123.59%	0.010	0.012	-
LTE Band 48			1	0	Bottom Surface	0	56640	3690	22.00	20.88	129.42%	0.008	0.010	-
LTE Band 48			50	50	Bottom Surface	0	55830	3609	21.00	20.92	101.86%	0.011	0.011	-

Note:
Reported SAR = measured SAR * Power scaling * Duty cycle scaling

6.3 Reporting statements of conformity

The conformity statement in this report is based solely on the test results, measurement uncertainty is excluded.

6.4 Conclusion

The device is compliant because all the standalone results are less than their corresponding criteria.

7 SIMULTANEOUS TRANSMISSION ANALYSIS

7.1 Simultaneous Transmission Scenarios:

Simultaneous Transmission configurations
WWAN + WLAN 2.4GHz Main + BT Aux
WWAN + WLAN 2.4GHz Main + WLAN 2.4GHz Aux
WWAN + WLAN 5GHz Main + BT Aux
WWAN + WLAN 5GHz Main + WLAN 5GHz Aux
WWAN + WLAN 5GHz Main + WLAN 5GHz Aux + BT Aux
WWAN + WLAN 6GHz Main + BT Aux
WWAN + WLAN 6GHz Main + WLAN 6GHz Aux
WWAN + WLAN 6GHz Main + WLAN 6GHz Aux + BT Aux

WLAN/BT SAR data of Notebook mode can be referred to Intel SAR test report, Report No.: 230526-09.TR21, 230526-09.TR13, 230526-09.TR12.

7.2 Estimated SAR calculation

According to KDB447498 D01v06 – When standalone SAR test exclusion applies to an antenna that transmits simultaneously with other antennas, the standalone SAR must be estimated according to following to determine simultaneous transmission SAR test exclusion:

$$\text{Estimated SAR} = \frac{\text{Max. tune up power (mW)}}{\text{Min. test separation distance(mm)}} \times \frac{\sqrt{\text{f(GHz)}}}{7.5}$$

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.

7.3 SPLSR evaluation and analysis

Per KDB447498D01, when the sum of SAR is larger than the limit, SAR test exclusion is determined by the SAR sum to peak location separation ratio(SPLSR).

The simultaneous transmitting antennas in each operating mode and exposure condition combination must be considered one pair at a time to determine the SAR to peak location separation ratio to qualify for test exclusion.

The ratio is determined by **(SAR1 + SAR2)^1.5/Ri**, rounded to two decimal digits, and must be **≤ 0.04** for all antenna pairs in the configuration to qualify for 1-g SAR test exclusion.

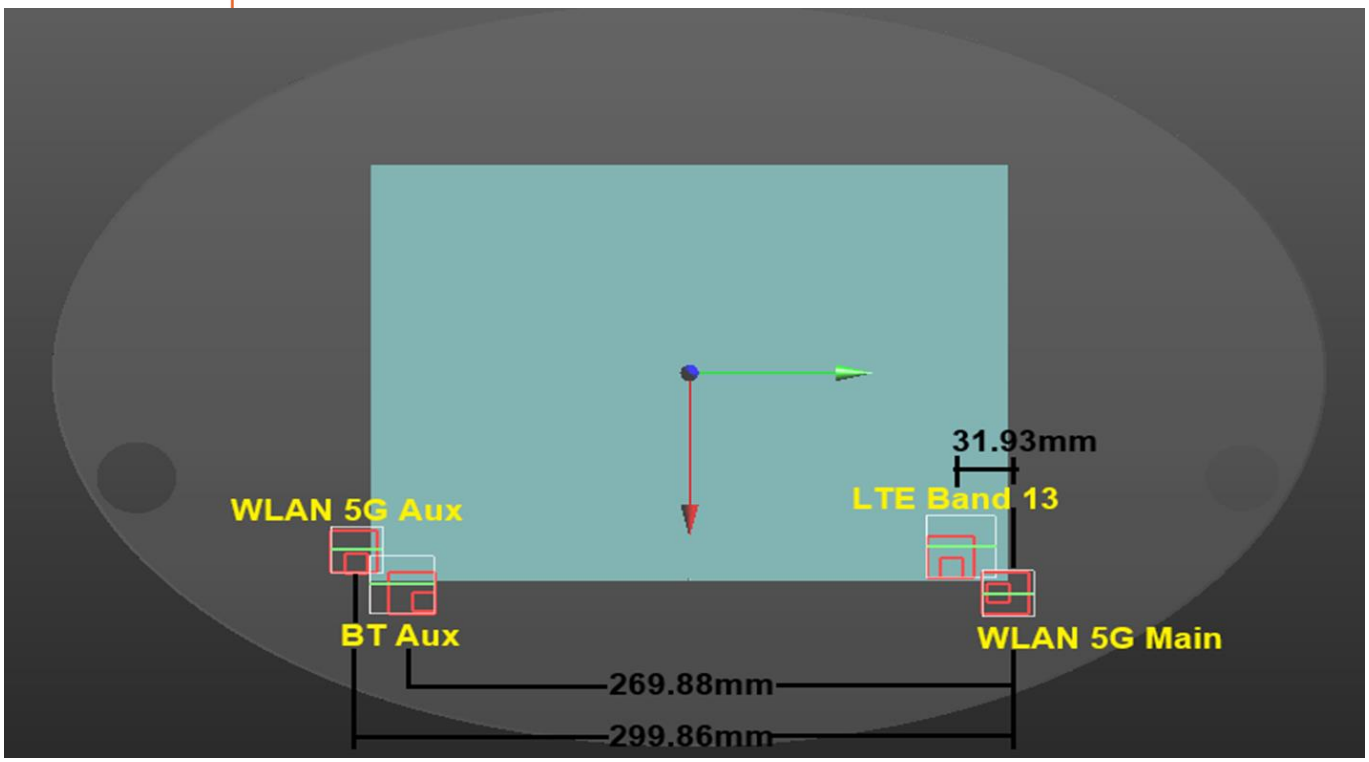
SAR1 and SAR2 are the highest reported or estimated SAR for each antenna in the pair, and Ri is the separation distance between the peak SAR locations for the antenna pair in mm.

When standalone test exclusion applies, SAR is estimated; the peak location is assumed to be at the feed-point or geometric center of the antenna.

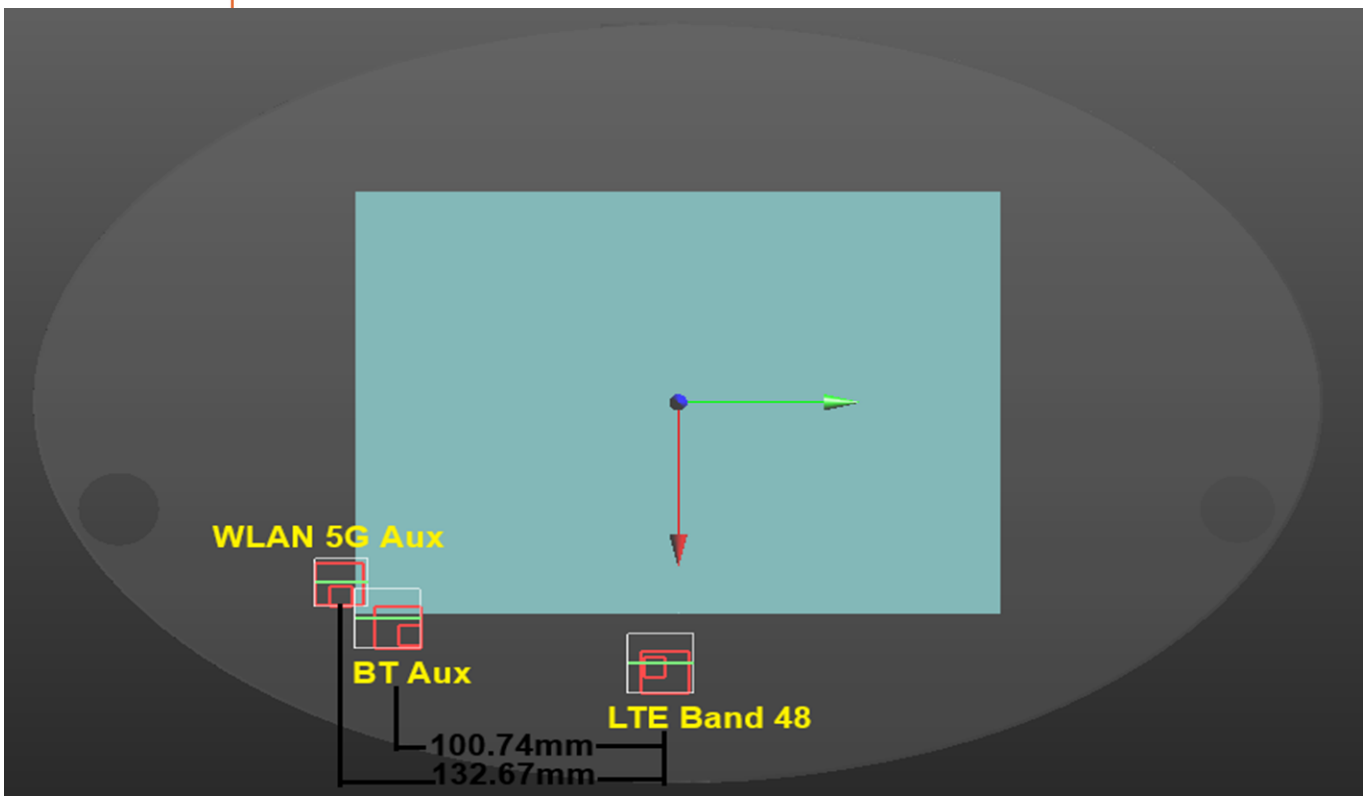
Simultaneous Transmission Combination

	Exposure Position		FCC Reported SAR									Scenario 1	Scenario 2	Scenario 3	Scenario 4	Scenario 5	Scenario 6	Scenario 7	Scenario 8
			1	2	3	4	5	7	8	9		1+2+3	1+4+5	1+2+7	1+4+7	1+4+5+7	1+7+8	1+8+9	1+7+8+9
			WWAN	2.4GHz WLAN Main	2.4GHz WLAN Aux	5GHz WLAN Main	5GHz WLAN Aux	Bluetooth Aux	6GHz WLAN Main	6GHz WLAN Aux		Summed	Summed	Summed	Summed	Summed	Summed	Summed	Summed
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)		1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)
WCDMA Band II	Bottom Surface	0	0.018	0.410	0.450	0.790	0.790	0.050	0.630	0.460		0.878	1.598	0.478	0.858	1.648	0.698	1.108	1.158
WCDMA Band IV	Bottom Surface	0	0.008	0.410	0.450	0.790	0.790	0.050	0.630	0.460		0.868	1.588	0.468	0.848	1.638	0.688	1.098	1.148
WCDMA Band V	Bottom Surface	0	0.025	0.410	0.450	0.790	0.790	0.050	0.630	0.460		0.885	1.605	0.485	0.865	1.655	0.705	1.115	1.165
LTE Band 2	Bottom Surface	0	0.008	0.410	0.450	0.790	0.790	0.050	0.630	0.460		0.868	1.588	0.468	0.848	1.638	0.688	1.098	1.148
LTE Band 4	Bottom Surface	0	0.009	0.410	0.450	0.790	0.790	0.050	0.630	0.460		0.869	1.589	0.469	0.849	1.639	0.689	1.099	1.149
LTE Band 5	Bottom Surface	0	0.039	0.410	0.450	0.790	0.790	0.050	0.630	0.460		0.899	1.619	0.499	0.879	1.669	0.719	1.129	1.179
LTE Band 7	Bottom Surface	0	0.010	0.410	0.450	0.790	0.790	0.050	0.630	0.460		0.870	1.590	0.470	0.850	1.640	0.690	1.100	1.150
LTE Band 12	Bottom Surface	0	0.022	0.410	0.450	0.790	0.790	0.050	0.630	0.460		0.882	1.602	0.482	0.862	1.652	0.702	1.112	1.162
LTE Band 13	Bottom Surface	0	0.028	0.410	0.450	0.790	0.790	0.050	0.630	0.460		0.888	1.608	0.488	0.868	1.658	0.708	1.118	1.168
LTE Band 14	Bottom Surface	0	0.030	0.410	0.450	0.790	0.790	0.050	0.630	0.460		0.890	1.610	0.490	0.870	1.660	0.710	1.120	1.170
LTE Band 17	Bottom Surface	0	0.021	0.410	0.450	0.790	0.790	0.050	0.630	0.460		0.881	1.601	0.481	0.861	1.651	0.701	1.111	1.161
LTE Band 25	Bottom Surface	0	0.012	0.410	0.450	0.790	0.790	0.050	0.630	0.460		0.872	1.592	0.472	0.852	1.642	0.692	1.102	1.152
LTE Band 26_FCC	Bottom Surface	0	0.032	0.410	0.450	0.790	0.790	0.050	0.630	0.460		0.892	1.612	0.492	0.872	1.662	0.712	1.122	1.172
LTE Band 30	Bottom Surface	0	0.026	0.410	0.450	0.790	0.790	0.050	0.630	0.460		0.886	1.606	0.486	0.866	1.656	0.706	1.116	1.166
LTE Band 66	Bottom Surface	0	0.010	0.410	0.450	0.790	0.790	0.050	0.630	0.460		0.870	1.590	0.470	0.850	1.640	0.690	1.100	1.150
LTE Band 71	Bottom Surface	0	0.023	0.410	0.450	0.790	0.790	0.050	0.630	0.460		0.883	1.603	0.483	0.863	1.653	0.703	1.113	1.163
LTE Band 38	Bottom Surface	0	0.007	0.410	0.450	0.790	0.790	0.050	0.630	0.460		0.867	1.587	0.467	0.847	1.637	0.687	1.097	1.147
LTE Band 41_PC3	Bottom Surface	0	0.009	0.410	0.450	0.790	0.790	0.050	0.630	0.460		0.869	1.589	0.469	0.849	1.639	0.689	1.099	1.149
LTE Band 48	Bottom Surface	0	0.016	0.410	0.450	0.790	0.790	0.050	0.630	0.460		0.876	1.596	0.476	0.856	1.646	0.696	1.106	1.156

Scenario 2&5									
Position	Conditions	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
Bottom Surface	WLAN 5G Main	0.790	11.27	15.02	-0.15	-	-	-	-
	WLAN 5G Aux	0.790	10.30	-14.95	-0.23	1.580	299.86	0.007	SPLSR ≤ 0.04, Not required
	BT Aux	0.050	11.60	-11.95	0.78	0.840	269.88	0.003	SPLSR ≤ 0.04, Not required
	WLAN5G + BT Aux	0.840	11.60	-11.95	0.78	1.630	269.88	0.008	SPLSR ≤ 0.04, Not required
	WCDMA II	0.018	8.54	9.02	-0.28	0.808	65.93	0.011	SPLSR ≤ 0.04, Not required
	WCDMA IV	0.008	13.97	4.82	-0.26	0.798	105.52	0.007	SPLSR ≤ 0.04, Not required
	WCDMA V	0.025	7.86	10.60	-0.28	0.815	55.84	0.013	SPLSR ≤ 0.04, Not required
	LTE Band 2	0.008	9.81	1.45	-0.26	0.798	136.49	0.005	SPLSR ≤ 0.04, Not required
	LTE Band 4	0.009	13.29	4.60	-0.24	0.799	106.14	0.007	SPLSR ≤ 0.04, Not required
	LTE Band 5	0.039	10.40	11.45	-0.23	0.829	36.75	0.021	SPLSR ≤ 0.04, Not required
	LTE Band 7	0.010	12.32	6.90	-0.25	0.800	81.88	0.009	SPLSR ≤ 0.04, Not required
	LTE Band 12	0.022	8.81	12.24	-0.23	0.812	37.13	0.020	SPLSR ≤ 0.04, Not required
	LTE Band 13	0.028	10.55	11.91	-0.23	0.818	31.93	0.023	SPLSR ≤ 0.04, Not required
	LTE Band 14	0.030	10.55	11.60	-0.23	0.820	34.96	0.021	SPLSR ≤ 0.04, Not required
	LTE Band 17	0.021	8.81	12.24	-0.23	0.811	37.13	0.020	SPLSR ≤ 0.04, Not required
	LTE Band 25	0.012	12.85	5.30	-0.25	0.802	98.48	0.007	SPLSR ≤ 0.04, Not required
	LTE Band 26_FCC	0.032	9.90	11.50	-0.23	0.822	37.78	0.020	SPLSR ≤ 0.04, Not required
	LTE Band 30	0.026	9.60	10.92	-0.25	0.816	44.28	0.017	SPLSR ≤ 0.04, Not required
	LTE Band 66	0.010	13.69	4.45	-0.24	0.800	108.44	0.007	SPLSR ≤ 0.04, Not required
	LTE Band 71	0.023	8.61	12.24	-0.23	0.813	38.48	0.019	SPLSR ≤ 0.04, Not required
	LTE Band 38	0.007	12.30	6.90	-0.25	0.797	81.86	0.009	SPLSR ≤ 0.04, Not required
	LTE Band 41	0.009	11.60	11.32	0.39	0.799	37.54	0.019	SPLSR ≤ 0.04, Not required
	LTE Band 48	0.016	14.30	-2.30	-0.25	0.806	175.83	0.004	SPLSR ≤ 0.04, Not required



Scenario 2&4&5									
Position	Conditions	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
Bottom Surface	WLAN5G + BT Aux	0.840	11.60	-11.95	0.78	-	-	-	-
	WCDMA II	0.018	8.54	9.02	-0.28	0.858	212.19	0.004	SPLSR ≤ 0.04, Not required
	WCDMA IV	0.008	13.97	4.82	-0.26	0.848	169.69	0.005	SPLSR ≤ 0.04, Not required
	WCDMA V	0.025	7.86	10.60	-0.28	0.865	228.83	0.004	SPLSR ≤ 0.04, Not required
	LTE Band 2	0.008	9.81	1.45	-0.26	0.848	135.59	0.006	SPLSR ≤ 0.04, Not required
	LTE Band 4	0.009	13.29	4.60	-0.24	0.849	166.67	0.005	SPLSR ≤ 0.04, Not required
	LTE Band 5	0.039	10.40	11.45	-0.23	0.879	234.53	0.004	SPLSR ≤ 0.04, Not required
	LTE Band 7	0.010	12.32	6.90	-0.25	0.850	188.92	0.004	SPLSR ≤ 0.04, Not required
	LTE Band 12	0.022	8.81	12.24	-0.23	0.862	243.71	0.003	SPLSR ≤ 0.04, Not required
	LTE Band 13	0.028	10.55	11.91	-0.23	0.868	239.05	0.003	SPLSR ≤ 0.04, Not required
	LTE Band 14	0.030	10.55	11.60	-0.23	0.870	235.95	0.003	SPLSR ≤ 0.04, Not required
	LTE Band 17	0.021	8.81	12.24	-0.23	0.861	243.72	0.003	SPLSR ≤ 0.04, Not required
	LTE Band 25	0.012	12.85	5.30	-0.25	0.852	173.26	0.005	SPLSR ≤ 0.04, Not required
	LTE Band 26_FCC	0.032	9.90	11.50	-0.23	0.872	235.33	0.003	SPLSR ≤ 0.04, Not required
	LTE Band 30	0.026	9.60	10.92	-0.25	0.866	229.80	0.004	SPLSR ≤ 0.04, Not required
	LTE Band 66	0.010	13.69	4.45	-0.24	0.850	165.64	0.005	SPLSR ≤ 0.04, Not required
	LTE Band 71	0.023	8.61	12.24	-0.23	0.863	243.95	0.003	SPLSR ≤ 0.04, Not required
	LTE Band 38	0.007	12.30	6.90	-0.25	0.847	188.91	0.004	SPLSR ≤ 0.04, Not required
	LTE Band 41	0.009	11.60	11.32	0.39	0.849	232.73	0.003	SPLSR ≤ 0.04, Not required
	LTE Band 48	0.016	14.30	-2.30	-0.25	0.856	100.74	0.008	SPLSR ≤ 0.04, Not required



7.4 Conclusion

The simultaneous transmission is compliant because both SAR sum and/or SPLSR are less than their corresponding criteria.

8 INSTRUMENTS LIST

Equipment List					
Manufacturer	**Device**	**Type**	**Serial number**	**Date of last calibration**	**Date of next calibration**
SPEAG	Data acquisition Electronics	DAE4	856	Apr/22/2024	Apr/21/2025
SPEAG	Dosimetric E-Field Probe	EX3DV4	7712	Apr/18/2024	Apr/17/2025
SPEAG	System Validation Dipole	D750V3	1015	Sep/27/2024	Sep/26/2025
SPEAG	System Validation Dipole	D835V2	4d063	Sep/16/2024	Sep/15/2025
SPEAG	System Validation Dipole	D1750V2	1008	Sep/27/2024	Sep/26/2025
SPEAG	System Validation Dipole	D1900V2	5d173	Apr/25/2024	Apr/24/2025
SPEAG	System Validation Dipole	D2300V2	1009	Aug/22/2024	Aug/21/2027
SPEAG	System Validation Dipole	D2600V2	1014	Aug/21/2024	Aug/20/2027
SPEAG	System Validation Dipole	D3500V2	1009	Sep/26/2024	Sep/25/2025
SPEAG	System Validation Dipole	D3700V2	1057	Nov/21/2024	Nov/20/2025
SPEAG	Dielectric Assessment Kit	DAK-3.5	1342	May/21/2024	May/20/2025
Agilent	Network Analyzer	E5071C	MY46107530	May/03/2024	May/02/2025
Keysight	Economy calibration kit	85032E	MY61410221	May/29/2024	May/28/2025
R&S	MXG Analog Signal Generator	SMB100A03	182996	Mar/29/2024	Mar/28/2025
Agilent	Dual-directional coupler	772D	MY46151258	Sep/30/2024	Sep/29/2025
Agilent	Dual-directional coupler	778D	MY46151242	Sep/03/2024	Sep/02/2025
EMCI	Amplifier	EMC 074225P	980155	Calibration not required	Calibration not required
Keysight	Power meter	E4417A	MY51410006	Mar/27/2024	Mar/26/2025
R&S	Power Sensor	NRP18S	101974	Nov/11/2024	Nov/10/2025
R&S	Power Sensor	NRP18S	109066	Oct/28/2024	Oct/27/2025
SPEAG	Software	DASY 52 V52.10.4	N/A	Calibration not required	Calibration not required
SPEAG	Phantom	ELI	N/A	Calibration not required	Calibration not required
R&S	Radio Communication Test	CMW 500	125470	May/17/2024	May/16/2025
TECPEL	Digital thermometer	DTM-303A	TP130074	May/10/2024	May/09/2025

9 UNCERTAINTY BUDGET

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	√3	1.732	1	1	2.02%	2.02%	∞
Isotropy, Hemispherical	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.)	3.29%	N	1	1	0.64	0.43	2.11%	1.41%	M
Liquid Conductivity (mea.)	3.47%	N	1	1	0.6	0.49	2.08%	1.70%	M
Combined standard uncertainty		RSS					11.80%	11.62%	
Expant uncertainty (95% confidence interval), K=2							23.59%	23.24%	

10 SAR MEASUREMENT RESULTS

Date: 2025/2/27

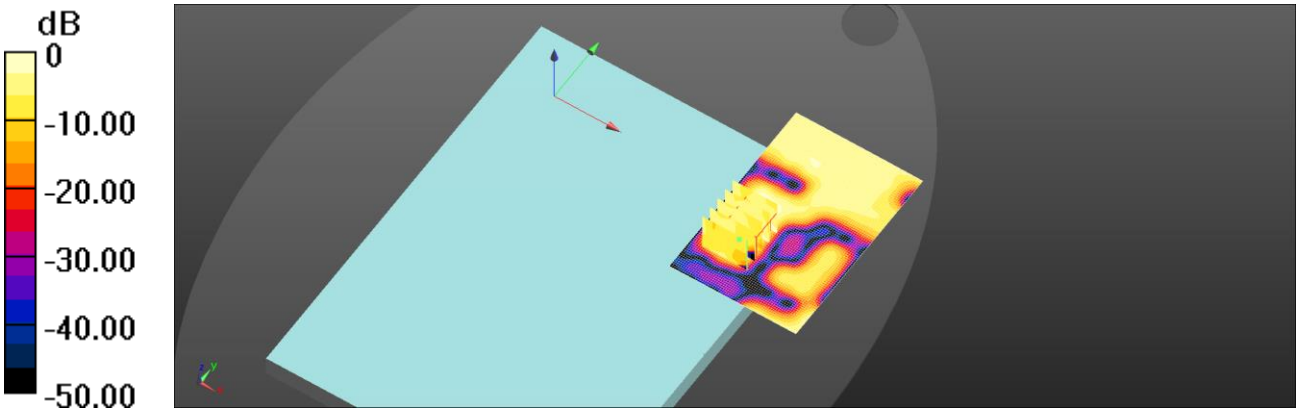
ID: 001
Report No. :TESA2502000142EN
WCDMA Band II_Body_Bottom Surface_CH 9262_0mm
Communication System: WCDMA; Frequency: 1852.4 MHz; Duty cycle= 1:1
Medium parameters used: f = 1852.4 MHz; σ = 1.426 S/m; εr = 40.806; ρ = 1000 kg/m^3
Phantom section: Flat Section
Ambient temperature: 21.5°C; Liquid temperature: 21.3°C

DASY5 Configuration:

- Probe: EX3DV4 - SN7712; ConvF(8.17, 7.9, 8.07) @ 1852.4 MHz; Calibrated: 2024/4/18
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn856; Calibrated: 2024/4/22
- Phantom: ELI
- DASY52 52.10.4(1527); SEMCAD X 14.6.14(7483)

Area Scan (61x91x1): Interpolated grid: dx=15 mm, dy=15 mm
Maximum value of SAR (interpolated) = 0.0506 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 1.742 V/m; Power Drift = 0.09 dB
Peak SAR (extrapolated) = 0.0260 W/kg
SAR(1 g) = 0.015 W/kg; SAR(10 g) = 0.00729 W/kg
Smallest distance from peaks to all points 3 dB below: Larger than measurement grid
Ratio of SAR at M2 to SAR at M1 = 63.1%
Maximum value of SAR (measured) = 0.0208 W/kg



0 dB = 0.0208 W/kg = -16.82 dBW/kg

Date: 2025/2/27

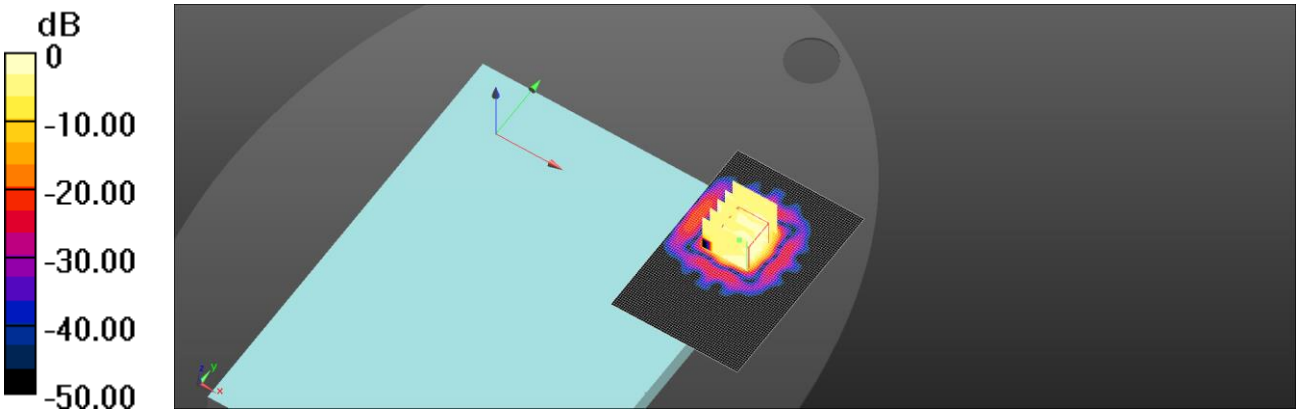
ID: 002
Report No. :TESA2502000142EN
WCDMA Band IV_Body_Bottom Surface_CH 1412_0mm
Communication System: WCDMA; Frequency: 1732.4 MHz; Duty cycle= 1:1
Medium parameters used: f = 1732.4 MHz; σ = 1.366 S/m; εr = 40.386; ρ = 1000 kg/m^3
Phantom section: Flat Section
Ambient temperature: 21.6°C; Liquid temperature: 21.5°C

DASY5 Configuration:

- Probe: EX3DV4 - SN7712; ConvF(8.49, 8.17, 8.46) @ 1732.4 MHz; Calibrated: 2024/4/18
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn856; Calibrated: 2024/4/22
- Phantom: ELI
- DASY52 52.10.4(1527); SEMCAD X 14.6.14(7483)

Area Scan (61x91x1): Interpolated grid: dx=15 mm, dy=15 mm
Maximum value of SAR (interpolated) = 0.00932 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 2.018 V/m; Power Drift = -0.01 dB
Peak SAR (extrapolated) = 0.0160 W/kg
SAR(1 g) = 0.00668 W/kg; SAR(10 g) = 0.0045 W/kg
Smallest distance from peaks to all points 3 dB below: Larger than measurement grid
Ratio of SAR at M2 to SAR at M1 = 69.3%
Maximum value of SAR (measured) = 0.00692 W/kg



0 dB = 0.00692 W/kg = -21.60 dBW/kg

Date: 2025/2/27

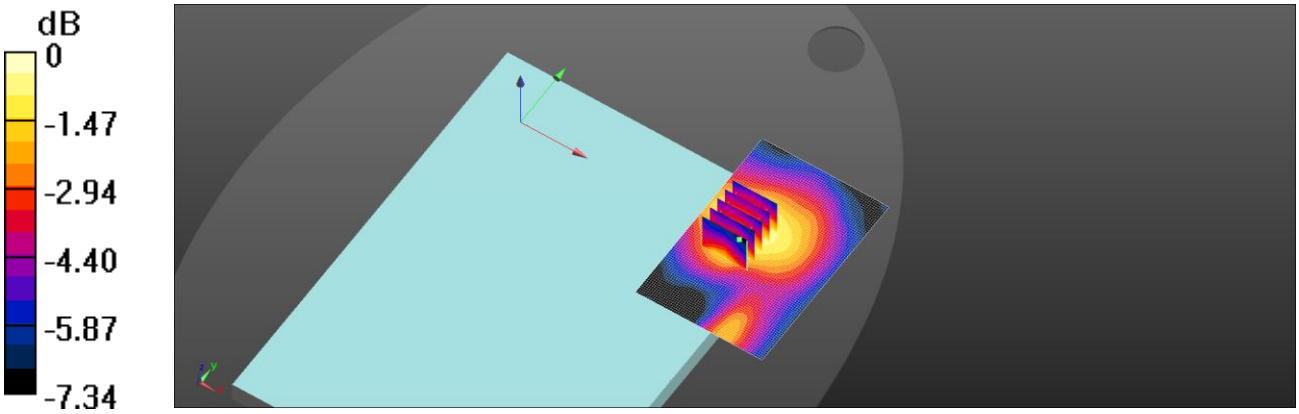
ID: 003
Report No. :TESA2502000142EN
WCDMA Band V_Body_Bottom Surface_CH 4233_0mm
Communication System: WCDMA; Frequency: 846.6 MHz; Duty cycle= 1:1
Medium parameters used: f = 846.6 MHz; σ = 0.937 S/m; εr = 42.802; ρ = 1000 kg/m^3
Phantom section: Flat Section
Ambient temperature: 21.9°C; Liquid temperature: 21.7°C

DASY5 Configuration:

- Probe: EX3DV4 - SN7712; ConvF(9.5, 9.1, 9.44) @ 846.6 MHz; Calibrated: 2024/4/18
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn856; Calibrated: 2024/4/22
- Phantom: ELI
- DASY52 52.10.4(1527); SEMCAD X 14.6.14(7483)

Area Scan (61x91x1): Interpolated grid: dx=15 mm, dy=15 mm
Maximum value of SAR (interpolated) = 0.0249 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 2.469 V/m; Power Drift = 0.12 dB
Peak SAR (extrapolated) = 0.0280 W/kg
SAR(1 g) = 0.021 W/kg; SAR(10 g) = 0.016 W/kg
Smallest distance from peaks to all points 3 dB below: Larger than measurement grid
Ratio of SAR at M2 to SAR at M1 = 70.2%
Maximum value of SAR (measured) = 0.0251 W/kg



0 dB = 0.0251 W/kg = -16.00 dBW/kg

Date: 2025/2/27

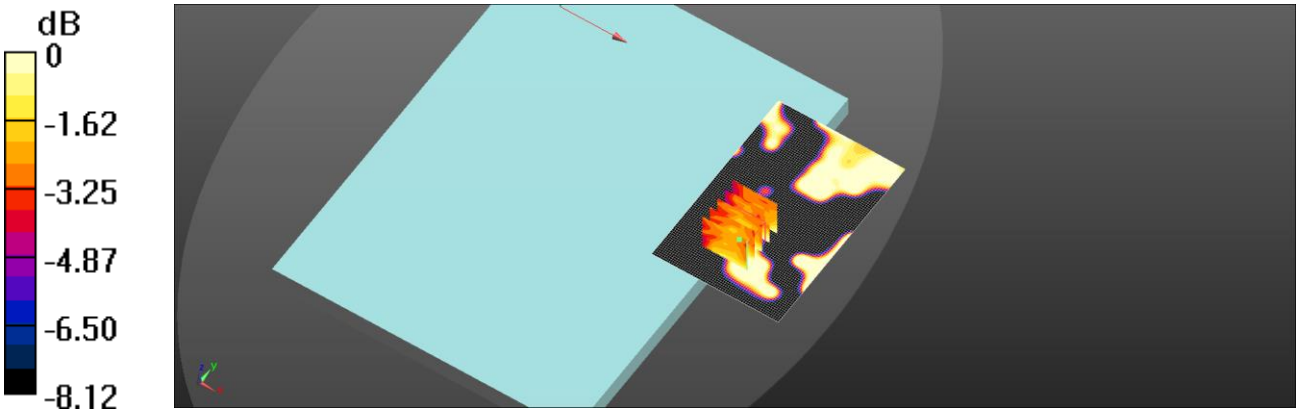
ID: 004
Report No. :TESA2502000142EN
LTE Band 2 (20MHz)_Body_Bottom Surface_CH 18900_QPSK_1-0_0mm
Communication System: LTE; Frequency: 1880 MHz; Duty cycle= 1:1
Medium parameters used: f = 1880 MHz; σ = 1.438 S/m; εr = 40.778; ρ = 1000 kg/m^3
Phantom section: Flat Section
Ambient temperature: 21.5°C; Liquid temperature: 21.3°C

DASY5 Configuration:

- Probe: EX3DV4 - SN7712; ConvF(8.17, 7.9, 8.07) @ 1880 MHz; Calibrated: 2024/4/18
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn856; Calibrated: 2024/4/22
- Phantom: ELI
- DASY52 52.10.4(1527); SEMCAD X 14.6.14(7483)

Area Scan (61x91x1): Interpolated grid: dx=15 mm, dy=15 mm
Maximum value of SAR (interpolated) = 0.0302 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 1.259 V/m; Power Drift = -0.12 dB
Peak SAR (extrapolated) = 0.0210 W/kg
SAR(1 g) = 0.00723 W/kg; SAR(10 g) = 0.00574 W/kg
Smallest distance from peaks to all points 3 dB below: Larger than measurement grid
Ratio of SAR at M2 to SAR at M1 = 84.8%
Maximum value of SAR (measured) = 0.00810 W/kg



0 dB = 0.00810 W/kg = -20.92 dBW/kg

Date: 2025/2/27

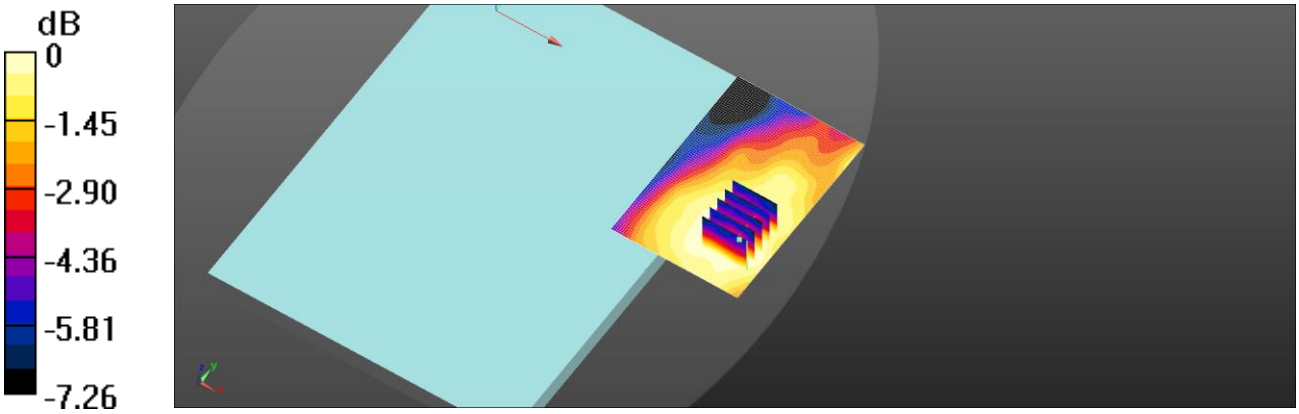
ID: 005
Report No. :TESA2502000142EN
LTE Band 4 (20MHz)_Body_Bottom Surface_CH 20300_QPSK_1-0_0mm
Communication System: LTE; Frequency: 1745 MHz; Duty cycle= 1:1
Medium parameters used: f = 1745 MHz; σ = 1.377 S/m; εr = 40.358; ρ = 1000 kg/m^3
Phantom section: Flat Section
Ambient temperature: 21.6°C; Liquid temperature: 21.5°C

DASY5 Configuration:

- Probe: EX3DV4 - SN7712; ConvF(8.49, 8.17, 8.46) @ 1745 MHz; Calibrated: 2024/4/18
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn856; Calibrated: 2024/4/22
- Phantom: ELI
- DASY52 52.10.4(1527); SEMCAD X 14.6.14(7483)

Area Scan (61x91x1): Interpolated grid: dx=15 mm, dy=15 mm
Maximum value of SAR (interpolated) = 0.0108 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 1.387 V/m; Power Drift = 0.03 dB
Peak SAR (extrapolated) = 0.0110 W/kg
SAR(1 g) = 0.00799 W/kg; SAR(10 g) = 0.006 W/kg
Smallest distance from peaks to all points 3 dB below: Larger than measurement grid
Ratio of SAR at M2 to SAR at M1 = 72.7%
Maximum value of SAR (measured) = 0.00987 W/kg



0 dB = 0.00987 W/kg = -20.06 dBW/kg

Date: 2025/2/27

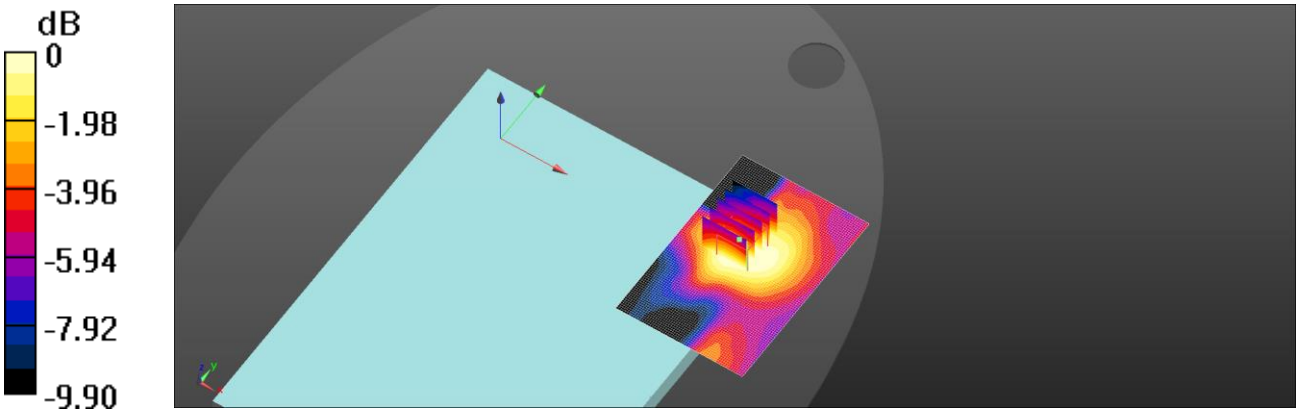
ID: 006
Report No. :TESA2502000142EN
LTE Band 5 (10MHz)_Body_Bottom Surface_CH 20525_QPSK_1-0_0mm
Communication System: LTE; Frequency: 836.5 MHz; Duty cycle= 1:1
Medium parameters used: f = 836.5 MHz; σ = 0.932 S/m; εr = 42.84; ρ = 1000 kg/m^3
Phantom section: Flat Section
Ambient temperature: 21.9°C; Liquid temperature: 21.7°C

DASY5 Configuration:

- Probe: EX3DV4 - SN7712; ConvF(9.5, 9.1, 9.44) @ 836.5 MHz; Calibrated: 2024/4/18
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn856; Calibrated: 2024/4/22
- Phantom: ELI
- DASY52 52.10.4(1527); SEMCAD X 14.6.14(7483)

Area Scan (61x91x1): Interpolated grid: dx=15 mm, dy=15 mm
Maximum value of SAR (interpolated) = 0.0331 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 1.603 V/m; Power Drift = 0.16 dB
Peak SAR (extrapolated) = 0.0340 W/kg
SAR(1 g) = 0.025 W/kg; SAR(10 g) = 0.018 W/kg
Smallest distance from peaks to all points 3 dB below: Larger than measurement grid
Ratio of SAR at M2 to SAR at M1 = 70.1%
Maximum value of SAR (measured) = 0.0307 W/kg



0 dB = 0.0307 W/kg = -15.13 dBW/kg

Date: 2025/2/28

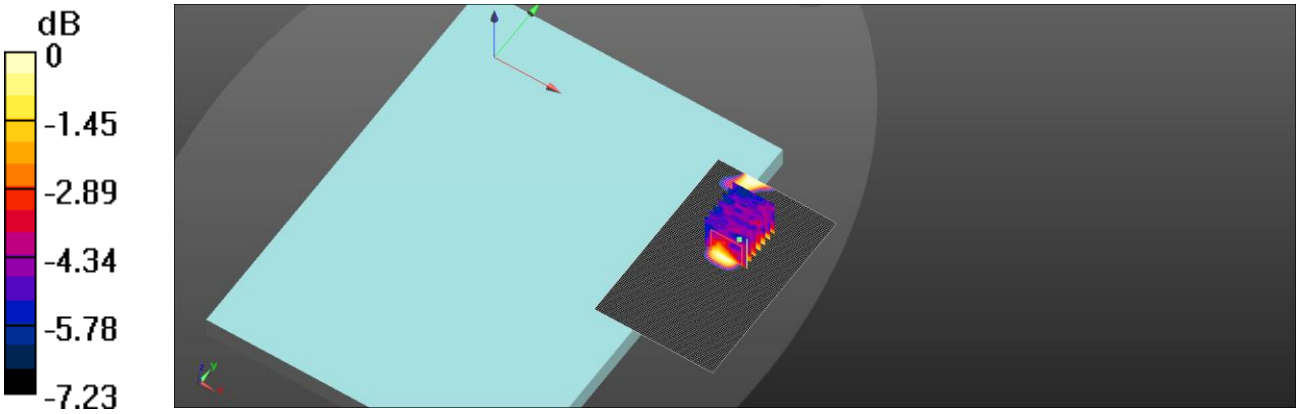
ID: 007
Report No. :TESA2502000142EN
LTE Band 7 (20MHz)_Body_Bottom Surface_CH 21350_QPSK_1-0_0mm
Communication System: LTE; Frequency: 2560 MHz; Duty cycle= 1:1
Medium parameters used: f = 2560 MHz; σ = 1.903 S/m; εr = 38.828; ρ = 1000 kg/m^3
Phantom section: Flat Section
Ambient temperature: 22.3°C; Liquid temperature: 21.9°C

DASY5 Configuration:

- Probe: EX3DV4 - SN7712; ConvF(7.64, 7.36, 7.49) @ 2560 MHz; Calibrated: 2024/4/18
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn856; Calibrated: 2024/4/22
- Phantom: ELI
- DASY52 52.10.4(1527); SEMCAD X 14.6.14(7483)

Area Scan (71x111x1): Interpolated grid: dx=12 mm, dy=12 mm
Maximum value of SAR (interpolated) = 0.0165 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 2.267 V/m; Power Drift = -0.08 dB
Peak SAR (extrapolated) = 0.0130 W/kg
SAR(1 g) = 0.0084 W/kg; SAR(10 g) = 0.00599 W/kg
Smallest distance from peaks to all points 3 dB below: Larger than measurement grid
Ratio of SAR at M2 to SAR at M1 = 64.8%
Maximum value of SAR (measured) = 0.0117 W/kg



0 dB = 0.0117 W/kg = -19.32 dBW/kg

Date: 2025/2/27

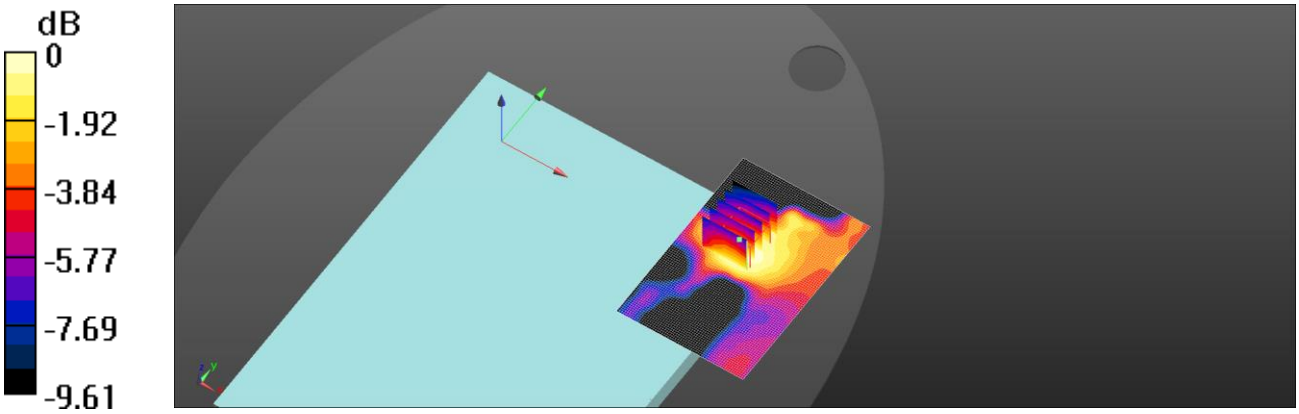
ID: 008
Report No. :TESA2502000142EN
LTE Band 12 (10MHz)_Body_Bottom Surface_CH 23130_QPSK_1-0_0mm
Communication System: LTE; Frequency: 711 MHz; Duty cycle= 1:1
Medium parameters used: f = 711 MHz; σ = 0.88 S/m; εr = 41.598; ρ = 1000 kg/m^3
Phantom section: Flat Section
Ambient temperature: 22.1°C; Liquid temperature: 21.8°C

DASY5 Configuration:

- Probe: EX3DV4 - SN7712; ConvF(9.57, 9.46, 9.78) @ 711 MHz; Calibrated: 2024/4/18
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn856; Calibrated: 2024/4/22
- Phantom: ELI
- DASY52 52.10.4(1527); SEMCAD X 14.6.14(7483)

Area Scan (61x91x1): Interpolated grid: dx=15 mm, dy=15 mm
Maximum value of SAR (interpolated) = 0.0257 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 2.978 V/m; Power Drift = 0.06 dB
Peak SAR (extrapolated) = 0.0240 W/kg
SAR(1 g) = 0.017 W/kg; SAR(10 g) = 0.012 W/kg
Smallest distance from peaks to all points 3 dB below: Larger than measurement grid
Ratio of SAR at M2 to SAR at M1 = 71.6%
Maximum value of SAR (measured) = 0.0212 W/kg



0 dB = 0.0212 W/kg = -16.74 dBW/kg

Date: 2025/2/27

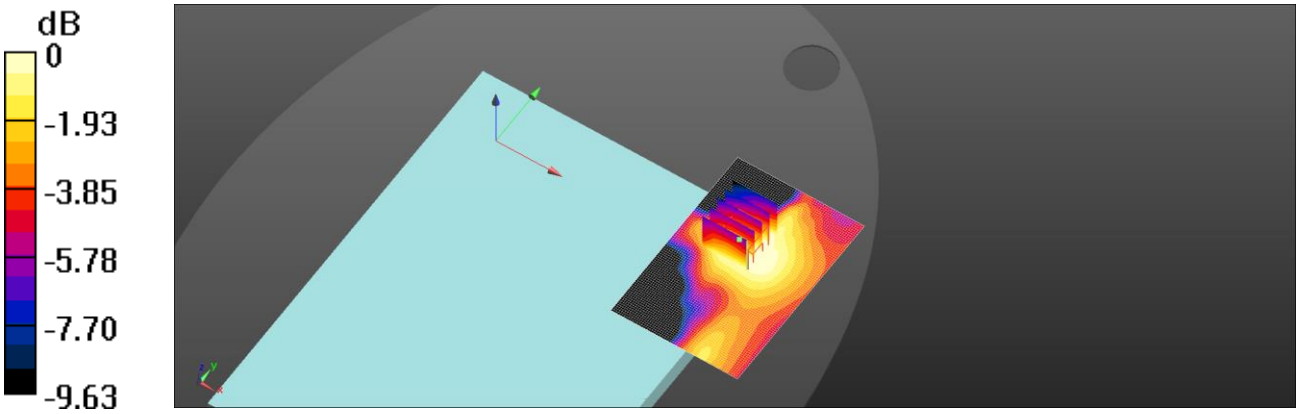
ID: 009
Report No. :TESA2502000142EN
LTE Band 13 (10MHz)_Body_Bottom Surface_CH 23230_QPSK_1-0_0mm
Communication System: LTE; Frequency: 782 MHz; Duty cycle= 1:1
Medium parameters used: f = 782 MHz; σ = 0.883 S/m; εr = 41.259; ρ = 1000 kg/m^3
Phantom section: Flat Section
Ambient temperature: 22.1°C; Liquid temperature: 21.8°C

DASY5 Configuration:

- Probe: EX3DV4 - SN7712; ConvF(9.57, 9.46, 9.78) @ 782 MHz; Calibrated: 2024/4/18
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn856; Calibrated: 2024/4/22
- Phantom: ELI
- DASY52 52.10.4(1527); SEMCAD X 14.6.14(7483)

Area Scan (61x91x1): Interpolated grid: dx=15 mm, dy=15 mm
Maximum value of SAR (interpolated) = 0.0312 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 2.794 V/m; Power Drift = 0.14 dB
Peak SAR (extrapolated) = 0.0300 W/kg
SAR(1 g) = 0.022 W/kg; SAR(10 g) = 0.017 W/kg
Smallest distance from peaks to all points 3 dB below: Larger than measurement grid
Ratio of SAR at M2 to SAR at M1 = 73.7%
Maximum value of SAR (measured) = 0.0270 W/kg



0 dB = 0.0270 W/kg = -15.69 dBW/kg

Date: 2025/2/27

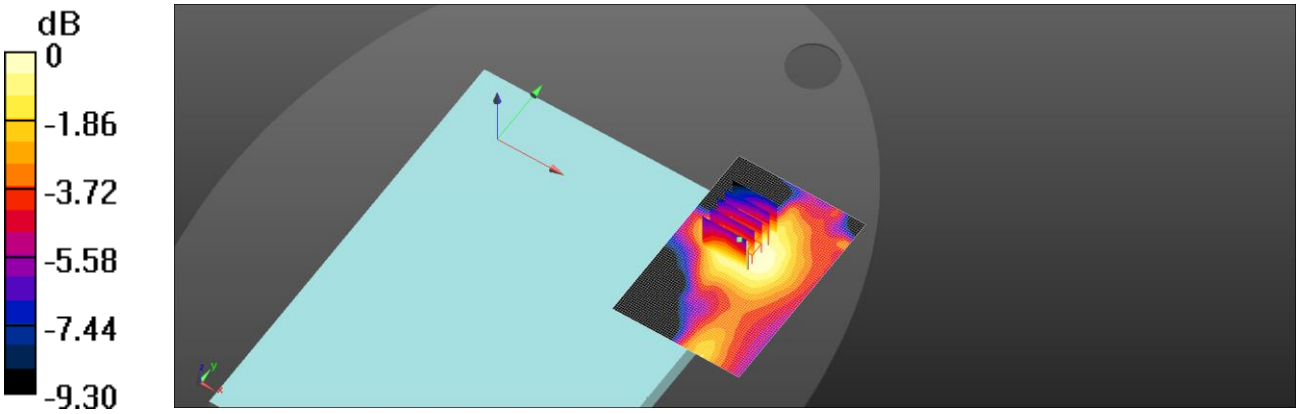
ID: 010
Report No. :TESA2502000142EN
LTE Band 14 (10MHz)_Body_Bottom Surface_CH 23330_QPSK_1-0_0mm
Communication System: LTE; Frequency: 793 MHz; Duty cycle= 1:1
Medium parameters used: f = 793 MHz; σ = 0.884 S/m; εr = 41.22; ρ = 1000 kg/m^3
Phantom section: Flat Section
Ambient temperature: 22.1°C; Liquid temperature: 21.8°C

DASY5 Configuration:

- Probe: EX3DV4 - SN7712; ConvF(9.57, 9.46, 9.78) @ 793 MHz; Calibrated: 2024/4/18
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn856; Calibrated: 2024/4/22
- Phantom: ELI
- DASY52 52.10.4(1527); SEMCAD X 14.6.14(7483)

Area Scan (61x91x1): Interpolated grid: dx=15 mm, dy=15 mm
Maximum value of SAR (interpolated) = 0.0320 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 1.909 V/m; Power Drift = 0.16 dB
Peak SAR (extrapolated) = 0.0310 W/kg
SAR(1 g) = 0.023 W/kg; SAR(10 g) = 0.017 W/kg
Smallest distance from peaks to all points 3 dB below: Larger than measurement grid
Ratio of SAR at M2 to SAR at M1 = 72.4%
Maximum value of SAR (measured) = 0.0283 W/kg



0 dB = 0.0283 W/kg = -15.48 dBW/kg

Date: 2025/2/27

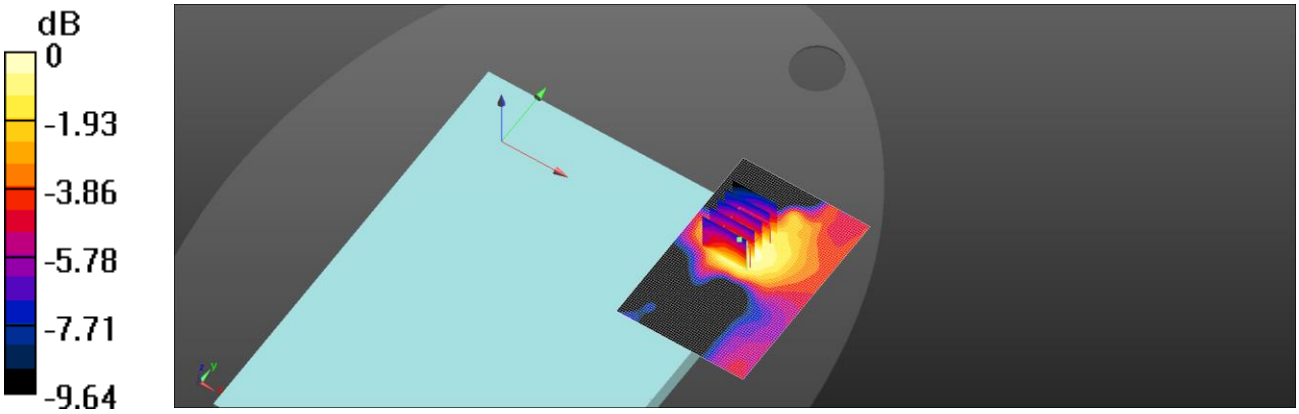
ID: 011
Report No. :TESA2502000142EN
LTE Band 17 (10MHz)_Body_Bottom Surface_CH 23800_QPSK_1-0_0mm
Communication System: LTE; Frequency: 711 MHz; Duty cycle= 1:1
Medium parameters used: f = 711 MHz; σ = 0.88 S/m; εr = 41.598; ρ = 1000 kg/m^3
Phantom section: Flat Section
Ambient temperature: 22.1°C; Liquid temperature: 21.8°C

DASY5 Configuration:

- Probe: EX3DV4 - SN7712; ConvF(9.57, 9.46, 9.78) @ 711 MHz; Calibrated: 2024/4/18
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn856; Calibrated: 2024/4/22
- Phantom: ELI
- DASY52 52.10.4(1527); SEMCAD X 14.6.14(7483)

Area Scan (61x91x1): Interpolated grid: dx=15 mm, dy=15 mm
Maximum value of SAR (interpolated) = 0.0247 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 2.634 V/m; Power Drift = 0.08 dB
Peak SAR (extrapolated) = 0.0230 W/kg
SAR(1 g) = 0.016 W/kg; SAR(10 g) = 0.011 W/kg
Smallest distance from peaks to all points 3 dB below: Larger than measurement grid
Ratio of SAR at M2 to SAR at M1 = 69.3%
Maximum value of SAR (measured) = 0.0201 W/kg



0 dB = 0.0201 W/kg = -16.97 dBW/kg

Date: 2025/2/27

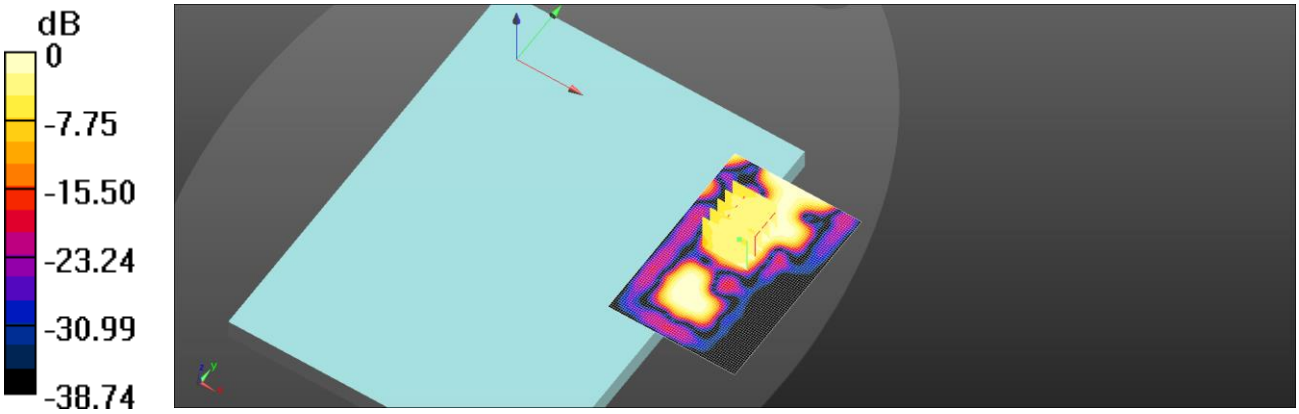
ID: 012
Report No. :TESA2502000142EN
LTE Band 25 (20MHz)_Body_Bottom Surface_CH 26365_QPSK_1-0_0mm
Communication System: LTE; Frequency: 1882.5 MHz; Duty cycle= 1:1
Medium parameters used: f = 1882.5 MHz; σ = 1.439 S/m; εr = 40.774; ρ = 1000 kg/m^3
Phantom section: Flat Section
Ambient temperature: 21.5°C; Liquid temperature: 21.3°C

DASY5 Configuration:

- Probe: EX3DV4 - SN7712; ConvF(8.17, 7.9, 8.07) @ 1882.5 MHz; Calibrated: 2024/4/18
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn856; Calibrated: 2024/4/22
- Phantom: ELI
- DASY52 52.10.4(1527); SEMCAD X 14.6.14(7483)

Area Scan (61x91x1): Interpolated grid: dx=15 mm, dy=15 mm
Maximum value of SAR (interpolated) = 0.0151 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 2.196 V/m; Power Drift = -0.01 dB
Peak SAR (extrapolated) = 0.0150 W/kg
SAR(1 g) = 0.010 W/kg; SAR(10 g) = 0.00746 W/kg
Smallest distance from peaks to all points 3 dB below: Larger than measurement grid
Ratio of SAR at M2 to SAR at M1 = 78.6%
Maximum value of SAR (measured) = 0.0121 W/kg



0 dB = 0.0121 W/kg = -19.17 dBW/kg

Date: 2025/2/27

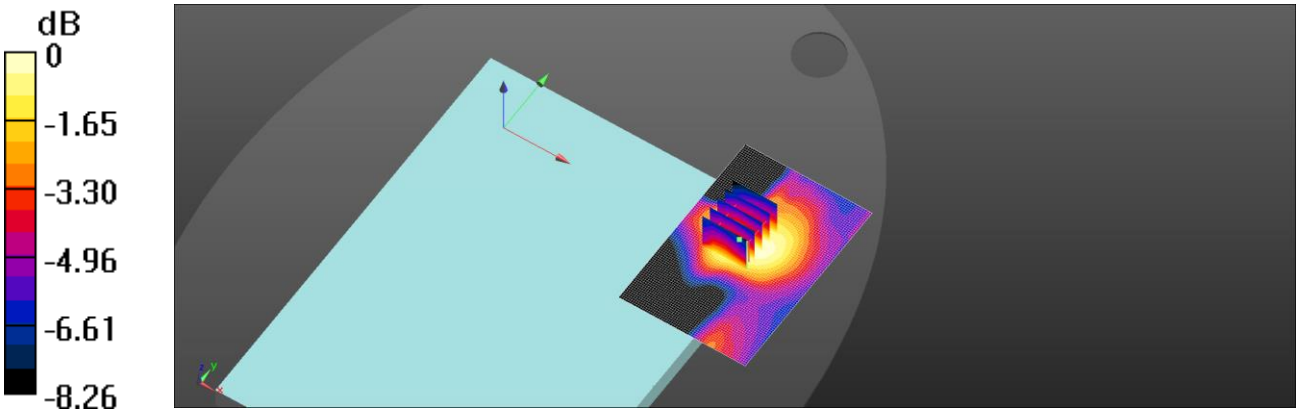
ID: 013
Report No. :TESA2502000142EN
LTE Band 26 (15MHz)_Body_Bottom Surface_CH 26965_QPSK_1-0_FCC_0mm
Communication System: LTE; Frequency: 841.5 MHz; Duty cycle= 1:1
Medium parameters used: f = 841.5 MHz; σ = 0.934 S/m; εr = 42.822; ρ = 1000 kg/m^3
Phantom section: Flat Section
Ambient temperature: 21.9°C; Liquid temperature: 21.7°C

DASY5 Configuration:

- Probe: EX3DV4 - SN7712; ConvF(9.5, 9.1, 9.44) @ 841.5 MHz; Calibrated: 2024/4/18
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn856; Calibrated: 2024/4/22
- Phantom: ELI
- DASY52 52.10.4(1527); SEMCAD X 14.6.14(7483)

Area Scan (61x91x1): Interpolated grid: dx=15 mm, dy=15 mm
Maximum value of SAR (interpolated) = 0.0337 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 2.643 V/m; Power Drift = 0.02 dB
Peak SAR (extrapolated) = 0.0340 W/kg
SAR(1 g) = 0.025 W/kg; SAR(10 g) = 0.019 W/kg
Smallest distance from peaks to all points 3 dB below: Larger than measurement grid
Ratio of SAR at M2 to SAR at M1 = 72.4%
Maximum value of SAR (measured) = 0.0314 W/kg



0 dB = 0.0314 W/kg = -15.03 dBW/kg

Date: 2025/2/28

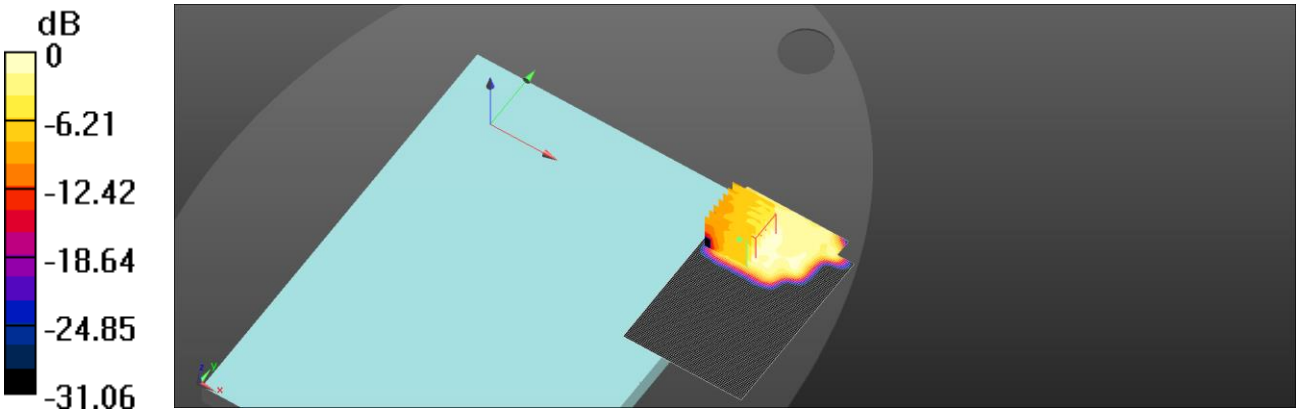
ID: 014
Report No. :TESA2502000142EN
LTE Band 30 (10MHz)_Body_Bottom Surface_CH 27710_QPSK_1-0_0mm
Communication System: LTE; Frequency: 2310 MHz; Duty cycle= 1:1
Medium parameters used: f = 2310 MHz; σ = 1.628 S/m; εr = 38.346; ρ = 1000 kg/m^3
Phantom section: Flat Section
Ambient temperature: 22.4°C; Liquid temperature: 21.9°C

DASY5 Configuration:

- Probe: EX3DV4 - SN7712; ConvF(7.98, 7.68, 7.79) @ 2310 MHz; Calibrated: 2024/4/18
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn856; Calibrated: 2024/4/22
- Phantom: ELI
- DASY52 52.10.4(1527); SEMCAD X 14.6.14(7483)

Area Scan (71x111x1): Interpolated grid: dx=12 mm, dy=12 mm
Maximum value of SAR (interpolated) = 0.0296 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 1.979 V/m; Power Drift = -0.05 dB
Peak SAR (extrapolated) = 0.0510 W/kg
SAR(1 g) = 0.021 W/kg; SAR(10 g) = 0.013 W/kg
Smallest distance from peaks to all points 3 dB below: Larger than measurement grid
Ratio of SAR at M2 to SAR at M1 = 69.8%
Maximum value of SAR (measured) = 0.0270 W/kg



0 dB = 0.0270 W/kg = -15.69 dBW/kg

Date: 2025/2/27

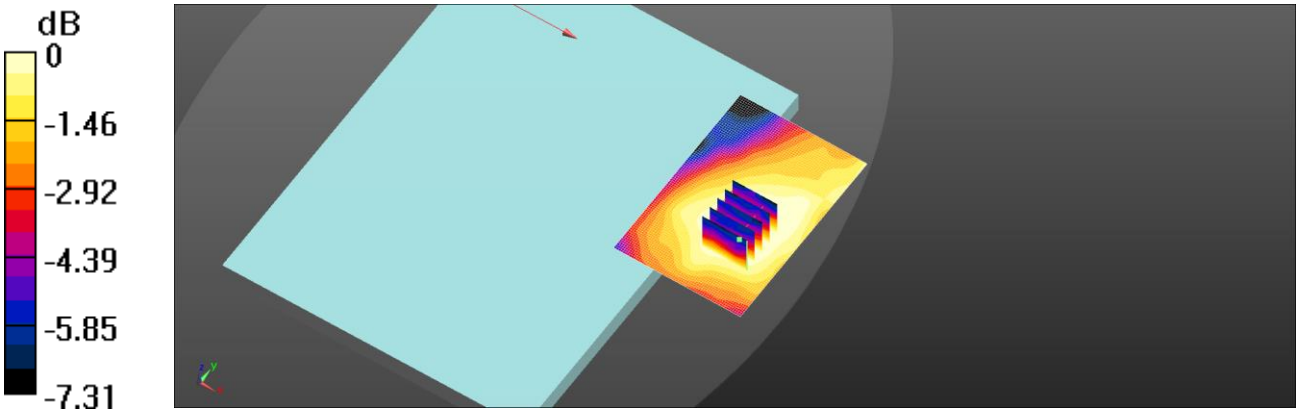
ID: 015
Report No. :TESA2502000142EN
LTE Band 66 (20MHz)_Body_Bottom Surface_CH 132572_QPSK_1-0_0mm
Communication System: LTE; Frequency: 1770 MHz; Duty cycle= 1:1
Medium parameters used: f = 1770 MHz; σ = 1.392 S/m; εr = 40.309; ρ = 1000 kg/m^3
Phantom section: Flat Section
Ambient temperature: 21.6°C; Liquid temperature: 21.5°C

DASY5 Configuration:

- Probe: EX3DV4 - SN7712; ConvF(8.49, 8.17, 8.46) @ 1770 MHz; Calibrated: 2024/4/18
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn856; Calibrated: 2024/4/22
- Phantom: ELI
- DASY52 52.10.4(1527); SEMCAD X 14.6.14(7483)

Area Scan (61x91x1): Interpolated grid: dx=15 mm, dy=15 mm
Maximum value of SAR (interpolated) = 0.0119 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 2.344 V/m; Power Drift = 0.03 dB
Peak SAR (extrapolated) = 0.0130 W/kg
SAR(1 g) = 0.00914 W/kg; SAR(10 g) = 0.00683 W/kg
Smallest distance from peaks to all points 3 dB below: Larger than measurement grid
Ratio of SAR at M2 to SAR at M1 = 70.4%
Maximum value of SAR (measured) = 0.0115 W/kg



0 dB = 0.0115 W/kg = -19.39 dBW/kg

Date: 2025/2/27

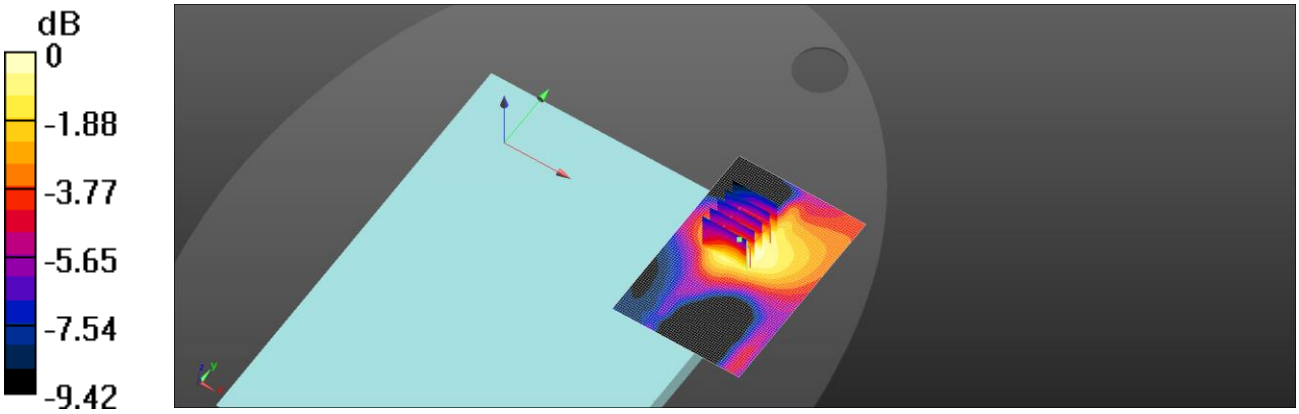
ID: 016
Report No. :TESA2502000142EN
LTE Band 71 (20MHz)_Body_Bottom Surface_CH 133222_QPSK_1-0_0mm
Communication System: LTE; Frequency: 673 MHz; Duty cycle= 1:1
Medium parameters used: f = 673 MHz; σ = 0.873 S/m; εr = 41.842; ρ = 1000 kg/m^3
Phantom section: Flat Section
Ambient temperature: 22.1°C; Liquid temperature: 21.8°C

DASY5 Configuration:

- Probe: EX3DV4 - SN7712; ConvF(9.57, 9.46, 9.78) @ 673 MHz; Calibrated: 2024/4/18
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn856; Calibrated: 2024/4/22
- Phantom: ELI
- DASY52 52.10.4(1527); SEMCAD X 14.6.14(7483)

Area Scan (61x91x1): Interpolated grid: dx=15 mm, dy=15 mm
Maximum value of SAR (interpolated) = 0.0253 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 1.428 V/m; Power Drift = 0.09 dB
Peak SAR (extrapolated) = 0.0270 W/kg
SAR(1 g) = 0.020 W/kg; SAR(10 g) = 0.014 W/kg
Smallest distance from peaks to all points 3 dB below: Larger than measurement grid
Ratio of SAR at M2 to SAR at M1 = 73.6%
Maximum value of SAR (measured) = 0.0237 W/kg



0 dB = 0.0237 W/kg = -16.25 dBW/kg

Date: 2025/2/28

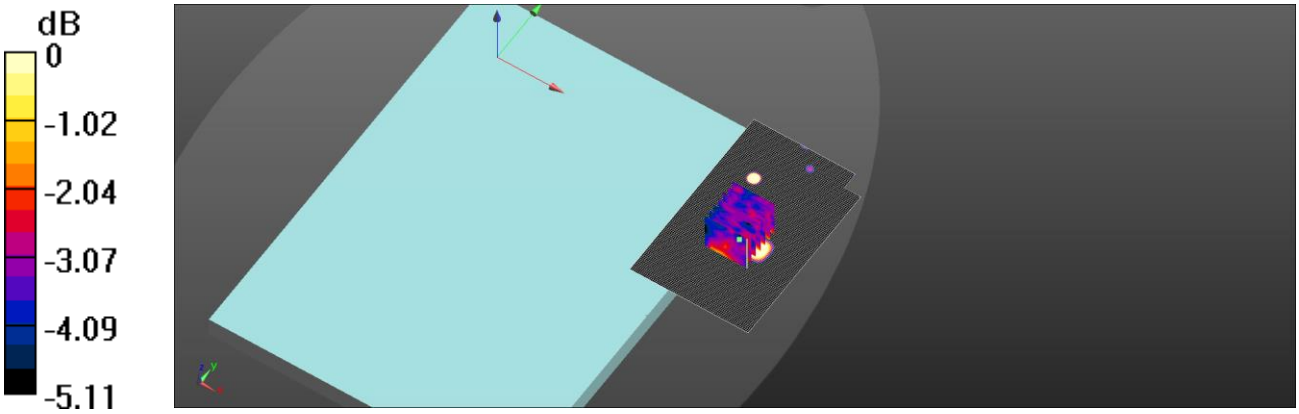
ID: 017
Report No. :TESA2502000142EN
LTE Band 38 (20MHz)_Body_Bottom Surface_CH 38000_QPSK_1-0_0mm
Communication System: LTE; Frequency: 2595 MHz; Duty cycle= 1:1.58
Medium parameters used: f = 2595 MHz; σ = 1.941 S/m; εr = 38.793; ρ = 1000 kg/m^3
Phantom section: Flat Section
Ambient temperature: 22.3°C; Liquid temperature: 21.9°C

DASY5 Configuration:

- Probe: EX3DV4 - SN7712; ConvF(7.64, 7.36, 7.49) @ 2595 MHz; Calibrated: 2024/4/18
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn856; Calibrated: 2024/4/22
- Phantom: ELI
- DASY52 52.10.4(1527); SEMCAD X 14.6.14(7483)

Area Scan (71x111x1): Interpolated grid: dx=12 mm, dy=12 mm
Maximum value of SAR (interpolated) = 0.0253 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 2.812 V/m; Power Drift = -0.04 dB
Peak SAR (extrapolated) = 0.00965 W/kg
SAR(1 g) = 0.00646 W/kg; SAR(10 g) = 0.00509 W/kg
Smallest distance from peaks to all points 3 dB below: Larger than measurement grid
Ratio of SAR at M2 to SAR at M1 = 69.6%
Maximum value of SAR (measured) = 0.00887 W/kg



0 dB = 0.00887 W/kg = -20.52 dBW/kg

Date: 2025/2/28

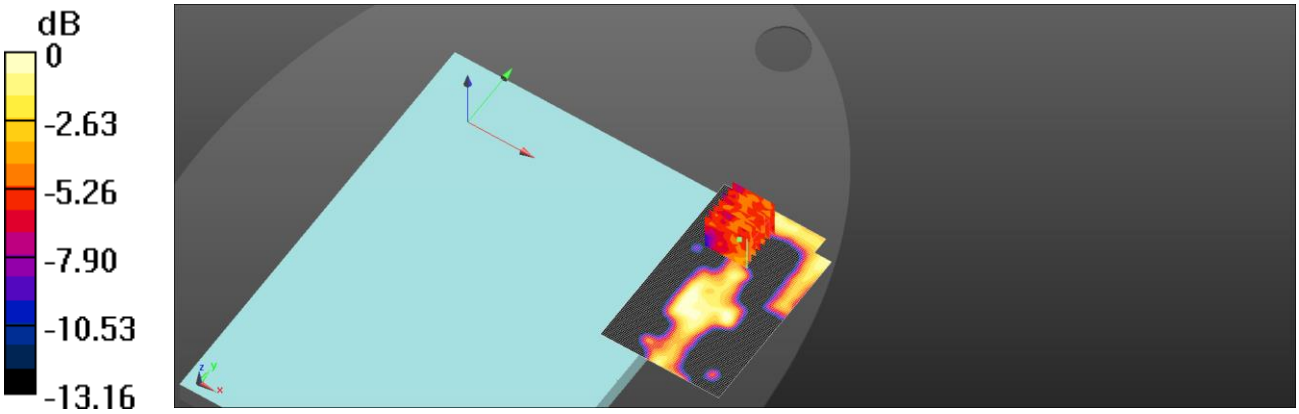
ID: 018
Report No. :TESA2502000142EN
LTE Band 41 (20MHz)_Body_Bottom Surface_CH 41490_QPSK_1-0_PC3_0mm
Communication System: LTE; Frequency: 2680 MHz; Duty cycle= 1:1.58
Medium parameters used: f = 2680 MHz; σ = 2.037 S/m; εr = 38.654; ρ = 1000 kg/m^3
Phantom section: Flat Section
Ambient temperature: 22.3°C; Liquid temperature: 21.9°C

DASY5 Configuration:

- Probe: EX3DV4 - SN7712; ConvF(7.64, 7.36, 7.49) @ 2680 MHz; Calibrated: 2024/4/18
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn856; Calibrated: 2024/4/22
- Phantom: ELI
- DASY52 52.10.4(1527); SEMCAD X 14.6.14(7483)

Area Scan (71x111x1): Interpolated grid: dx=12 mm, dy=12 mm
Maximum value of SAR (interpolated) = 0.0268 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 2.328 V/m; Power Drift = -0.10 dB
Peak SAR (extrapolated) = 0.0140 W/kg
SAR(1 g) = 0.00793 W/kg; SAR(10 g) = 0.00531 W/kg
Smallest distance from peaks to all points 3 dB below: Larger than measurement grid
Ratio of SAR at M2 to SAR at M1 = 45.2%
Maximum value of SAR (measured) = 0.0143 W/kg



0 dB = 0.0143 W/kg = -18.45 dBW/kg

Date: 2025/2/28

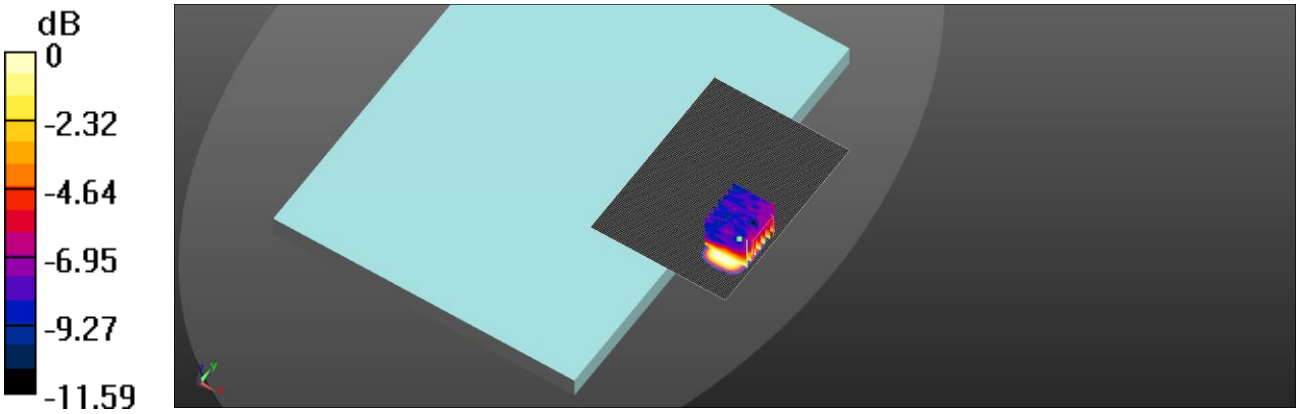
ID: 019
Report No. :TESA2502000142EN
LTE Band 48 (20MHz)_Body_Bottom Surface_CH 55830_QPSK_1-0_0mm
Communication System: LTE; Frequency: 3609 MHz; Duty cycle= 1:1.58
Medium parameters used: f = 3609 MHz; σ = 3.071 S/m; εr = 38.445; ρ = 1000 kg/m^3
Phantom section: Flat Section
Ambient temperature: 21.9°C; Liquid temperature: 21.6°C

DASY5 Configuration:

- Probe: EX3DV4 - SN7712; ConvF(6.72, 6.43, 6.54) @ 3609 MHz; Calibrated: 2024/4/18
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn856; Calibrated: 2024/4/22
- Phantom: ELI
- DASY52 52.10.4(1527); SEMCAD X 14.6.14(7483)

Area Scan (81x111x1): Interpolated grid: dx=12 mm, dy=12 mm
Maximum value of SAR (interpolated) = 0.0317 W/kg

Zoom Scan (7x7x8)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=4mm
Reference Value = 2.071 V/m; Power Drift = 0.02 dB
Peak SAR (extrapolated) = 0.0280 W/kg
SAR(1 g) = 0.013 W/kg; SAR(10 g) = 0.0077 W/kg
Smallest distance from peaks to all points 3 dB below: Larger than measurement grid
Ratio of SAR at M2 to SAR at M1 = 53.6%
Maximum value of SAR (measured) = 0.0211 W/kg



0 dB = 0.0211 W/kg = -16.76 dBW/kg

11 SAR SYSTEM CHECK RESULTS

Date: 2025/2/27

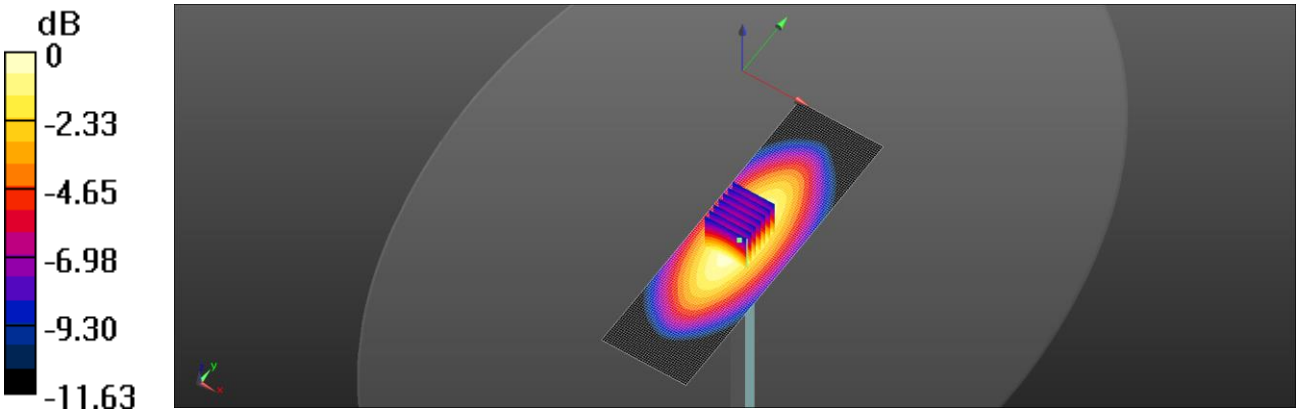
Report No. :TESA2502000142EN
Dipole 750 MHz_SN:1015
Communication System: CW; Frequency: 750 MHz; Duty cycle= 1:1
Medium parameters used: f = 750 MHz; σ = 0.882 S/m; εr = 41.384; ρ = 1000 kg/m^3
Phantom section: Flat Section
Ambient temperature: 22.1°C; Liquid temperature: 21.8°C

DASY5 Configuration:

- Probe: EX3DV4 - SN7712; ConvF(9.57, 9.46, 9.78) @ 750 MHz; Calibrated: 2024/4/18
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn856; Calibrated: 2024/4/22
- Phantom: ELI
- DASY52 52.10.4(1527); SEMCAD X 14.6.14(7483)

Area Scan (41x141x1): Interpolated grid: dx=15 mm, dy=15 mm
Maximum value of SAR (interpolated) = 2.48 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 61.82 V/m; Power Drift = -0.04 dB
Peak SAR (extrapolated) = 2.87 W/kg
SAR(1 g) = 2.03 W/kg; SAR(10 g) = 1.37 W/kg
Smallest distance from peaks to all points 3 dB below: Larger than measurement grid
Ratio of SAR at M2 to SAR at M1 = 58.5%
Maximum value of SAR (measured) = 2.50 W/kg



0 dB = 2.50 W/kg = 3.98 dBW/kg

Date: 2025/2/27

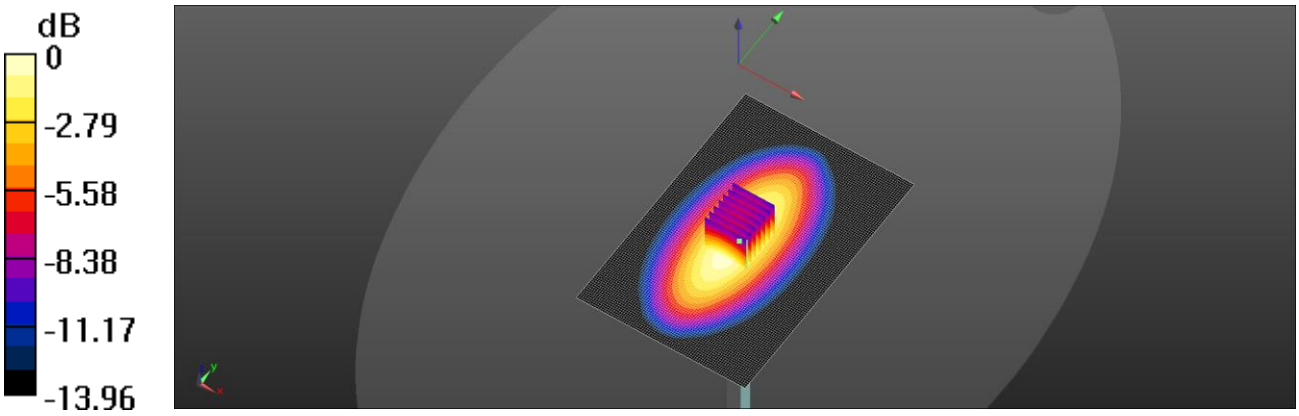
Report No. :TESA2502000142EN
Dipole 835 MHz_SN:4d063
Communication System: CW; Frequency: 835 MHz; Duty cycle= 1:1
Medium parameters used: f = 835 MHz; σ = 0.931 S/m; εr = 42.853; ρ = 1000 kg/m^3
Phantom section: Flat Section
Ambient temperature: 21.9°C; Liquid temperature: 21.7°C

DASY5 Configuration:

- Probe: EX3DV4 - SN7712; ConvF(9.5, 9.1, 9.44) @ 835 MHz; Calibrated: 2024/4/18
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn856; Calibrated: 2024/4/22
- Phantom: ELI
- DASY52 52.10.4(1527); SEMCAD X 14.6.14(7483)

Area Scan (81x121x1): Interpolated grid: dx=15 mm, dy=15 mm
Maximum value of SAR (interpolated) = 2.97 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 56.39 V/m; Power Drift = -0.16 dB
Peak SAR (extrapolated) = 3.50 W/kg
SAR(1 g) = 2.38 W/kg; SAR(10 g) = 1.58 W/kg
Smallest distance from peaks to all points 3 dB below = 16.7 mm
Ratio of SAR at M2 to SAR at M1 = 61.9%
Maximum value of SAR (measured) = 2.96 W/kg



0 dB = 2.96 W/kg = 4.71 dBW/kg

Date: 2025/2/27

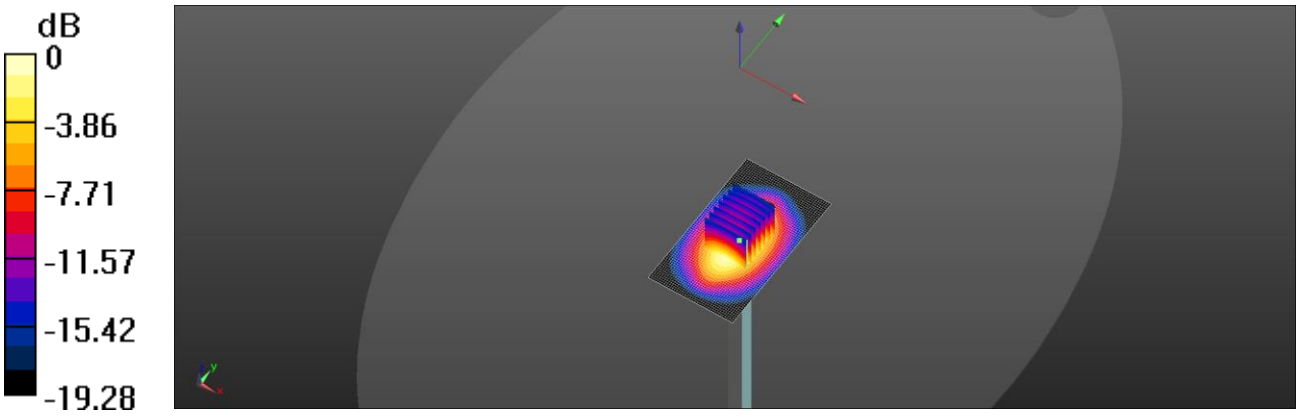
Report No. :TESA2502000142EN
Dipole 1750 MHz_SN:1008
Communication System: CW; Frequency: 1750 MHz; Duty cycle= 1:1
Medium parameters used: f = 1750 MHz; σ = 1.379 S/m; εr = 40.353; ρ = 1000 kg/m^3
Phantom section: Flat Section
Ambient temperature: 21.6°C; Liquid temperature: 21.5°C

DASY5 Configuration:

- Probe: EX3DV4 - SN7712; ConvF(8.49, 8.17, 8.46) @ 1750 MHz; Calibrated: 2024/4/18
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn856; Calibrated: 2024/4/22
- Phantom: ELI
- DASY52 52.10.4(1527); SEMCAD X 14.6.14(7483)

Area Scan (41x71x1): Interpolated grid: dx=15 mm, dy=15 mm
Maximum value of SAR (interpolated) = 13.7 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 89.11 V/m; Power Drift = 0.13 dB
Peak SAR (extrapolated) = 17.1 W/kg
SAR(1 g) = 8.99 W/kg; SAR(10 g) = 4.68 W/kg
Smallest distance from peaks to all points 3 dB below = 13.2 mm
Ratio of SAR at M2 to SAR at M1 = 50.4%
Maximum value of SAR (measured) = 13.1 W/kg



0 dB = 13.1 W/kg = 11.17 dBW/kg

Date: 2025/2/27

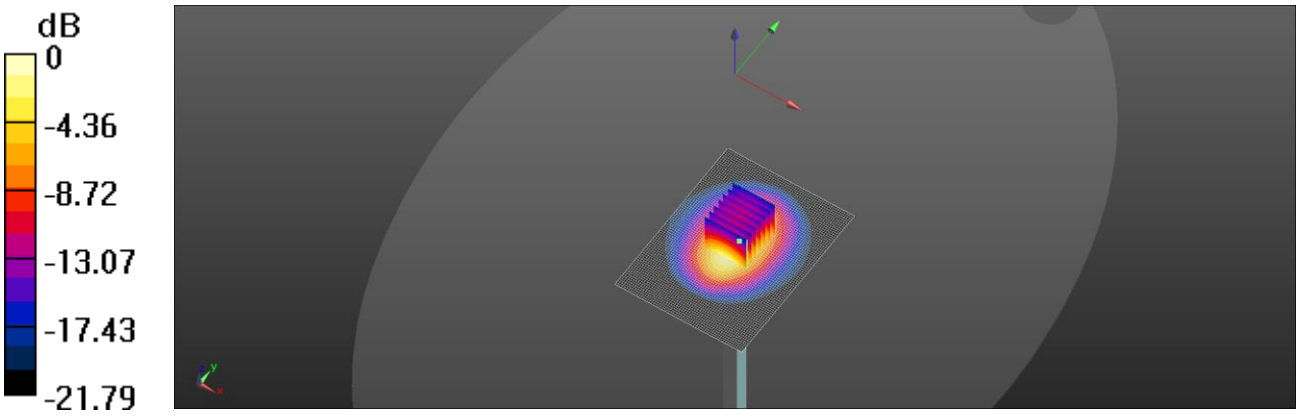
Report No. :TESA2502000142EN
Dipole 1900 MHz_SN:5d173
Communication System: CW; Frequency: 1900 MHz; Duty cycle= 1:1
Medium parameters used: f = 1900 MHz; σ = 1.441 S/m; εr = 40.759; ρ = 1000 kg/m^3
Phantom section: Flat Section
Ambient temperature: 21.5°C; Liquid temperature: 21.3°C

DASY5 Configuration:

- Probe: EX3DV4 - SN7712; ConvF(8.17, 7.9, 8.07) @ 1900 MHz; Calibrated: 2024/4/18
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn856; Calibrated: 2024/4/22
- Phantom: ELI
- DASY52 52.10.4(1527); SEMCAD X 14.6.14(7483)

Area Scan (61x81x1): Interpolated grid: dx=15 mm, dy=15 mm
Maximum value of SAR (interpolated) = 14.9 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 92.43 V/m; Power Drift = 0.06 dB
Peak SAR (extrapolated) = 18.2 W/kg
SAR(1 g) = 9.76 W/kg; SAR(10 g) = 5.1 W/kg
Smallest distance from peaks to all points 3 dB below = 8.4 mm
Ratio of SAR at M2 to SAR at M1 = 56.1%
Maximum value of SAR (measured) = 14.0 W/kg



0 dB = 14.0 W/kg = 11.46 dBW/kg

Date: 2025/2/28

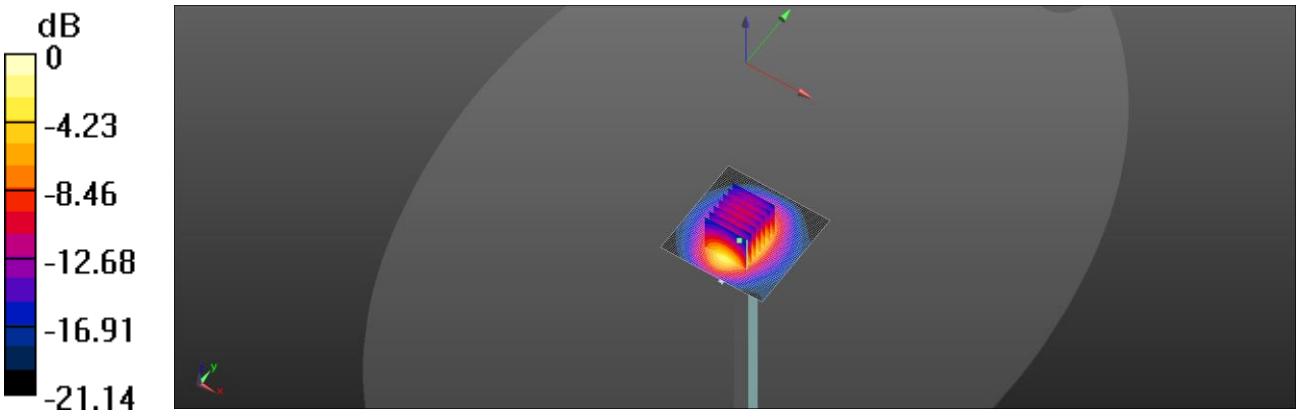
Report No. :TESA2502000142EN
Dipole 2300 MHz_SN:1009
Communication System: CW; Frequency: 2300 MHz; Duty cycle= 1:1
Medium parameters used: f = 2300 MHz; σ = 1.62 S/m; εr = 38.379; ρ = 1000 kg/m^3
Phantom section: Flat Section
Ambient temperature: 22.4°C; Liquid temperature: 21.9°C

DASY5 Configuration:

- Probe: EX3DV4 - SN7712; ConvF(7.98, 7.68, 7.79) @ 2300 MHz; Calibrated: 2024/4/18
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn856; Calibrated: 2024/4/22
- Phantom: ELI
- DASY52 52.10.4(1527); SEMCAD X 14.6.14(7483)

Area Scan (61x61x1): Interpolated grid: dx=12 mm, dy=12 mm
Maximum value of SAR (interpolated) = 18.9 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 102.4 V/m; Power Drift = 0.17 dB
Peak SAR (extrapolated) = 21.2 W/kg
SAR(1 g) = 12.3 W/kg; SAR(10 g) = 6.23 W/kg
Smallest distance from peaks to all points 3 dB below = 8.6 mm
Ratio of SAR at M2 to SAR at M1 = 56.8%
Maximum value of SAR (measured) = 17.4 W/kg



0 dB = 17.4 W/kg = 12.41 dBW/kg

Date: 2025/2/28

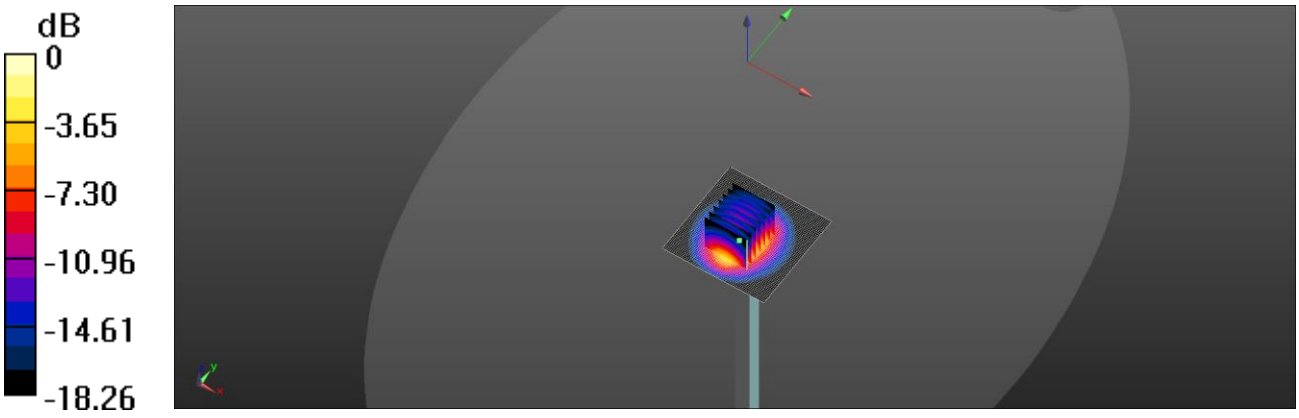
Report No. :TESA2502000142EN
Dipole 2600 MHz_SN:1014
Communication System: CW; Frequency: 2600 MHz; Duty cycle= 1:1
Medium parameters used: f = 2600 MHz; σ = 1.945 S/m; εr = 38.789; ρ = 1000 kg/m^3
Phantom section: Flat Section
Ambient temperature: 22.3°C; Liquid temperature: 21.9°C

DASY5 Configuration:

- Probe: EX3DV4 - SN7712; ConvF(7.64, 7.36, 7.49) @ 2600 MHz; Calibrated: 2024/4/18
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn856; Calibrated: 2024/4/22
- Phantom: ELI
- DASY52 52.10.4(1527); SEMCAD X 14.6.14(7483)

Area Scan (61x61x1): Interpolated grid: dx=12 mm, dy=12 mm
Maximum value of SAR (interpolated) = 21.3 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 106.7 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 25.3 W/kg
SAR(1 g) = 13.4 W/kg; SAR(10 g) = 6.33 W/kg
Smallest distance from peaks to all points 3 dB below = 9.6 mm
Ratio of SAR at M2 to SAR at M1 = 51.9%
Maximum value of SAR (measured) = 19.9 W/kg



0 dB = 19.9 W/kg = 12.99 dBW/kg

Date: 2025/2/28

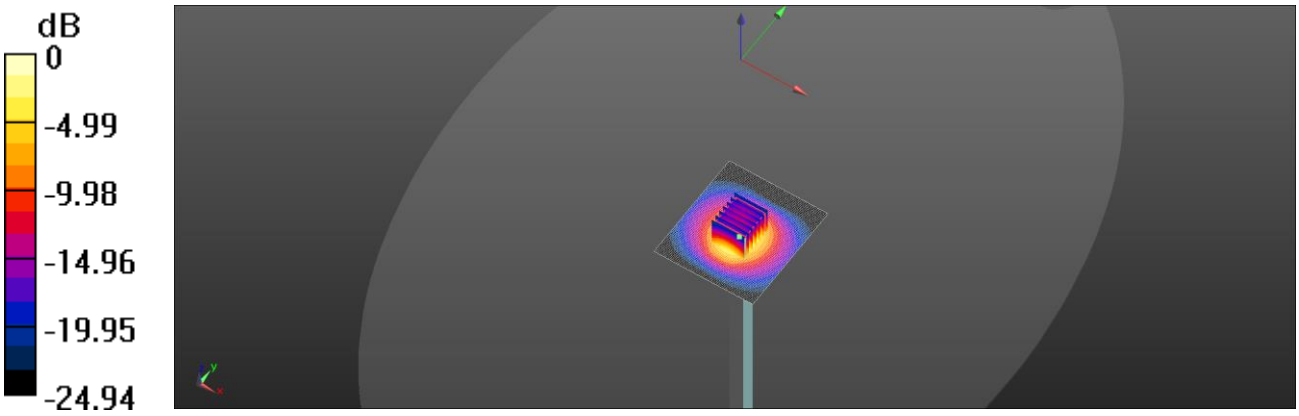
Report No. :TESA2502000142EN
Dipole 3500 MHz_SN:1009
Communication System: CW; Frequency: 3500 MHz; Duty cycle= 1:1
Medium parameters used: f = 3500 MHz; σ = 2.952 S/m; εr = 38.586; ρ = 1000 kg/m^3
Phantom section: Flat Section
Ambient temperature: 22.2°C; Liquid temperature: 21.8°C

DASY5 Configuration:

- Probe: EX3DV4 - SN7712; ConvF(6.91, 6.66, 6.75) @ 3500 MHz; Calibrated: 2024/4/18
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn856; Calibrated: 2024/4/22
- Phantom: ELI
- DASY52 52.10.4(1527); SEMCAD X 14.6.14(7483)

Area Scan (71x81x1): Interpolated grid: dx=10 mm, dy=10 mm
Maximum value of SAR (interpolated) = 10.9 W/kg

Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 65.88 V/m; Power Drift = -0.05 dB
Peak SAR (extrapolated) = 15.4 W/kg
SAR(1 g) = 6.41 W/kg; SAR(10 g) = 2.55 W/kg
Smallest distance from peaks to all points 3 dB below = 8.8 mm
Ratio of SAR at M2 to SAR at M1 = 68.7%
Maximum value of SAR (measured) = 10.6 W/kg



0 dB = 10.6 W/kg = 10.25 dBW/kg

Date: 2025/2/28

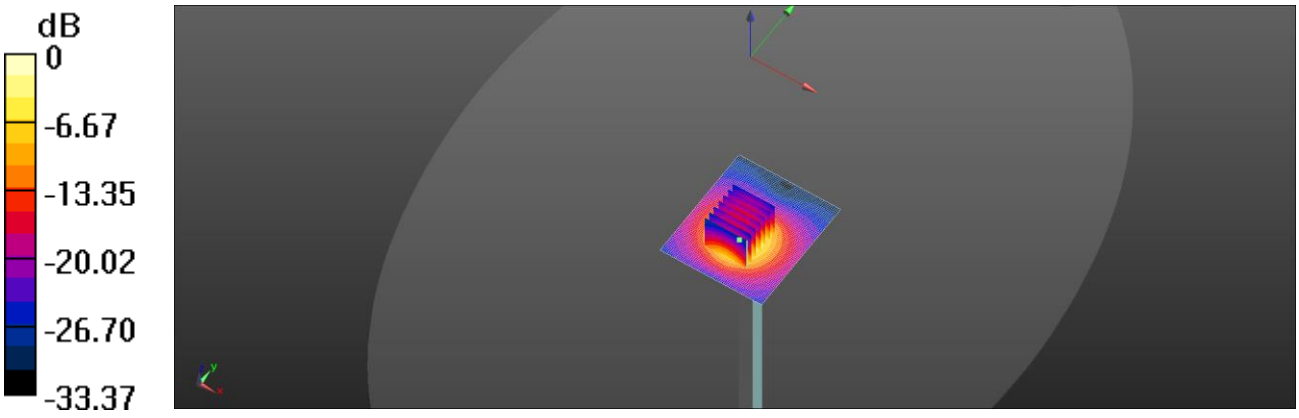
Report No. :TESA2502000142EN
Dipole 3700 MHz_SN:1057
Communication System: CW; Frequency: 3700 MHz; Duty cycle= 1:1
Medium parameters used: f = 3700 MHz; σ = 3.168 S/m; εr = 38.355; ρ = 1000 kg/m^3
Phantom section: Flat Section
Ambient temperature: 21.9°C; Liquid temperature: 21.6°C

DASY5 Configuration:

- Probe: EX3DV4 - SN7712; ConvF(6.72, 6.43, 6.54) @ 3700 MHz; Calibrated: 2024/4/18
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn856; Calibrated: 2024/4/22
- Phantom: ELI
- DASY52 52.10.4(1527); SEMCAD X 14.6.14(7483)

Area Scan (61x71x1): Interpolated grid: dx=12 mm, dy=12 mm
Maximum value of SAR (interpolated) = 11.4 W/kg

Zoom Scan (7x7x8)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=4mm
Reference Value = 52.56 V/m; Power Drift = 0.06 dB
Peak SAR (extrapolated) = 15.7 W/kg
SAR(1 g) = 6.48 W/kg; SAR(10 g) = 2.44 W/kg
Smallest distance from peaks to all points 3 dB below = 8 mm
Ratio of SAR at M2 to SAR at M1 = 49.5%
Maximum value of SAR (measured) = 10.9 W/kg



0 dB = 10.9 W/kg = 10.37 dBW/kg

12 APPENDIXES

Refer to separated files for the following appendixes.

12.1 SAR_Appendix A Photographs

12.2 SAR_Appendix B DAE & Probe Cal. Certificate

12.3 SAR_Appendix C Phantom Description & Dipole Cal. Certificate

12.4 SAR_Appendix D DIpole Extended Calibration Verification

- End of report -